

FIG. 1

A detailed cross-sectional view of a multi-layered electronic device assembly. The diagram illustrates various layers and components, labeled with numerical identifiers from 1 to 38. Dimensions are provided along the top and bottom horizontal axes.

- Top Dimension:** Labeled "A" at the left end, it spans the width of the assembly. Sub-dimensions are marked as 36, 40, 36, 37, 33, 33, 41, 36, 40, 39, 40, 42, and 36.
- Bottom Dimension:** Labeled "B" at the right end, it spans the height of the assembly. Sub-dimensions are marked as 1, 5, 9, 6, 9, 7, 6, 9, 3, 2, 4, 13, 12, 12, 13, 17, 2, 16, 10, 11, 5, 10, 11, 16, 2, 16b, 10b, 16b, and 2.

The assembly consists of several distinct layers and structures:

- Substrate (1):** The base layer at the bottom.
- Conductive Layers:** Multiple layers of conductive material, including layers 2, 6, 7, 8, 14, 15, 16, 30, 31, 32, 34, 35, 36, and 38. These layers are often patterned or etched.
- Insulating Layers:** Various insulating materials, such as layers 3, 4, 5, 9, 10, 11, 12, 13, 17, 18, 23, 24, 25, 26, 27, 28, 29, 33, and 37.
- Central Core (22(BL)):** A central component, possibly a liquid crystal layer, located between layers 24 and 25.
- Other Components:** Labels like C₂, C₃, Q_{s1}, Q_{s2}, Q_{s3}, Q_{p1}, and Q_{p2} point to specific structural features or regions within the assembly.

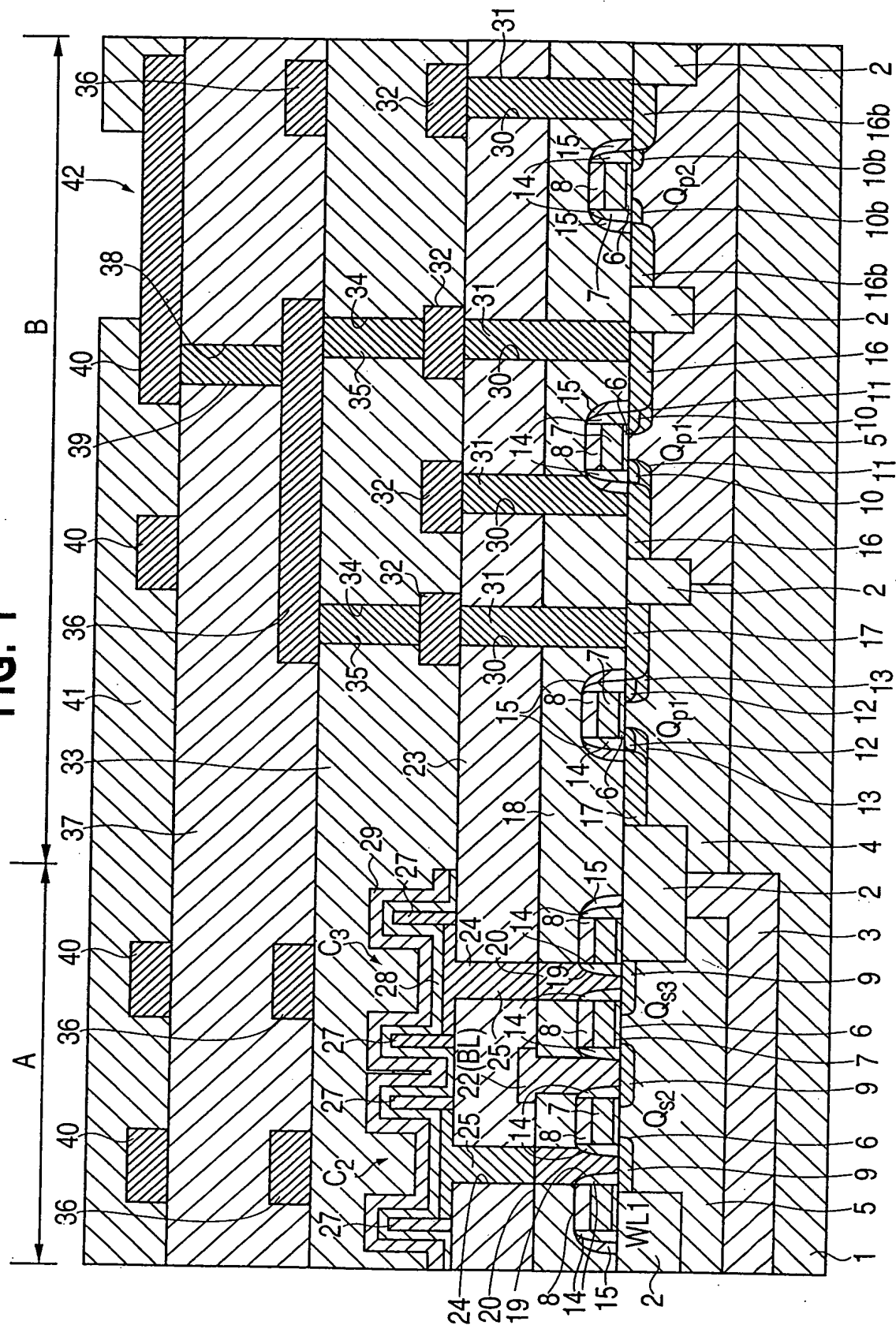


FIG. 2

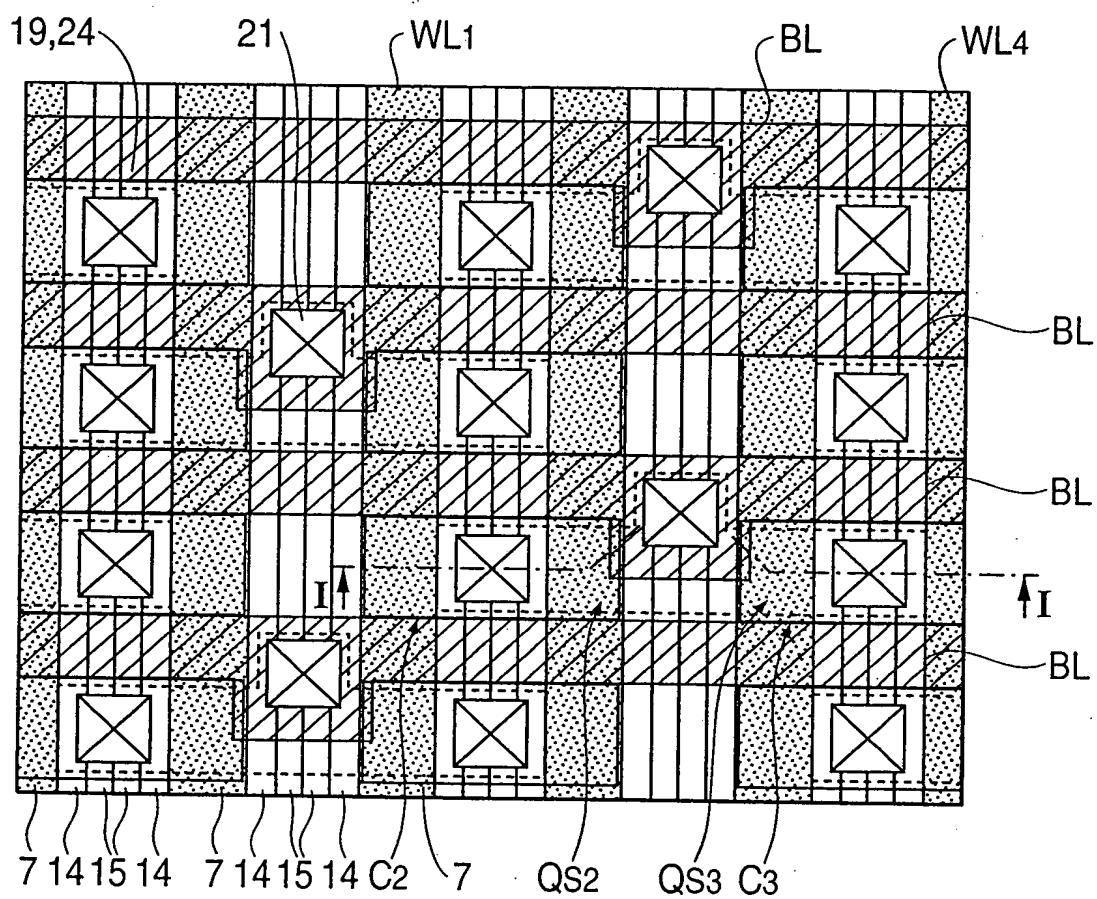


FIG. 3

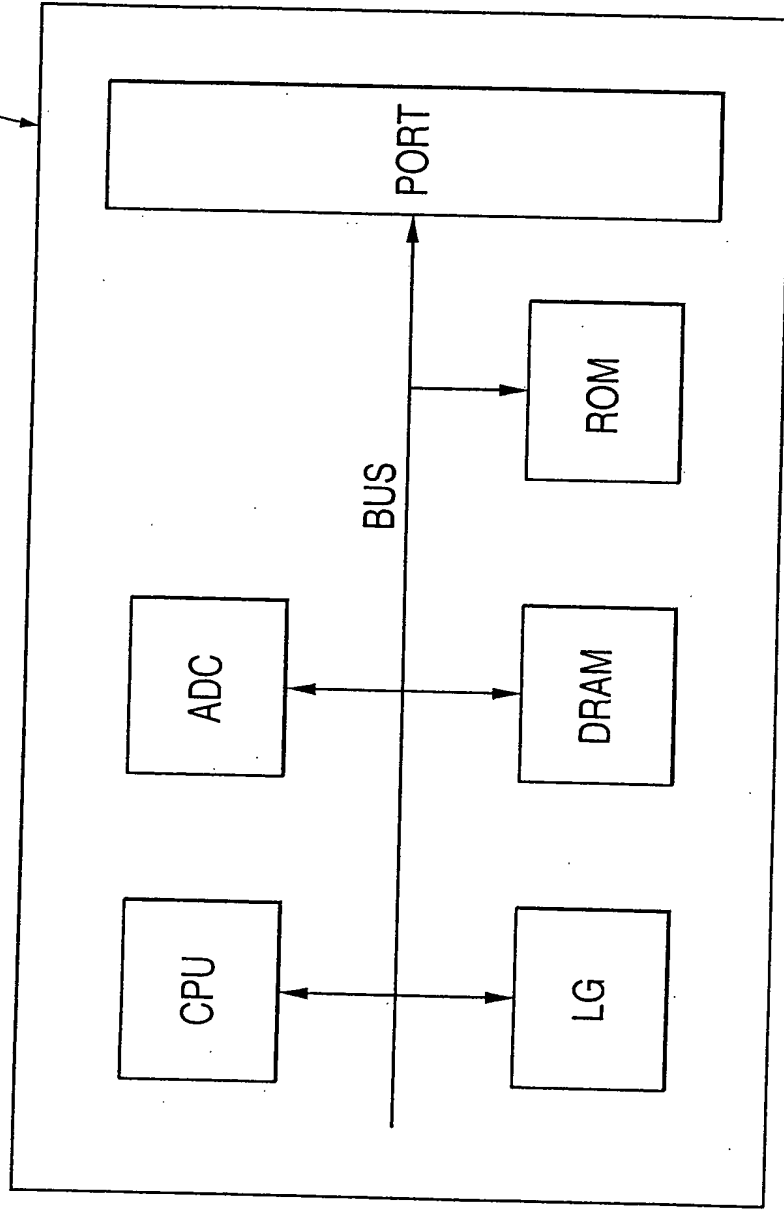


FIG. 4

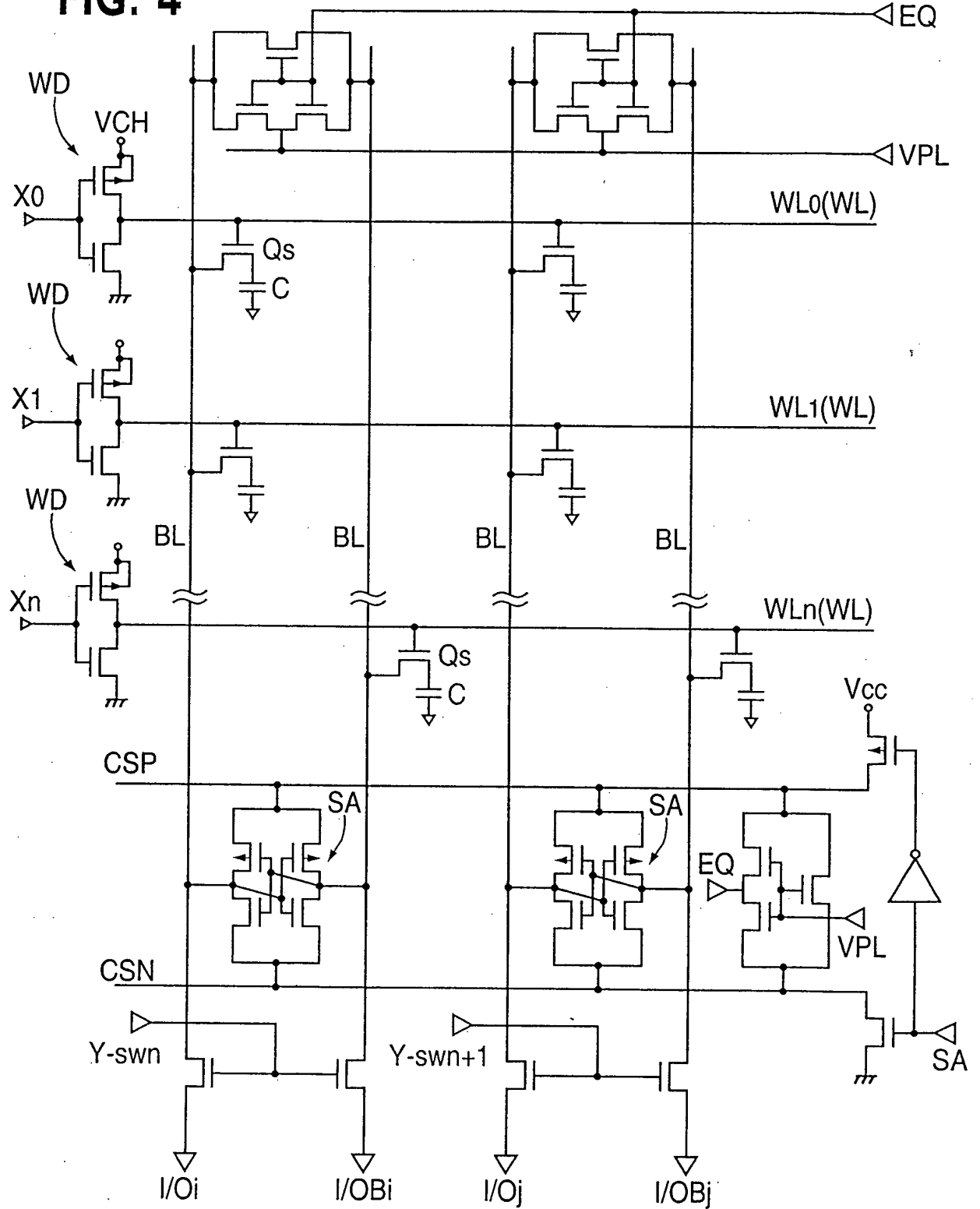


FIG. 5

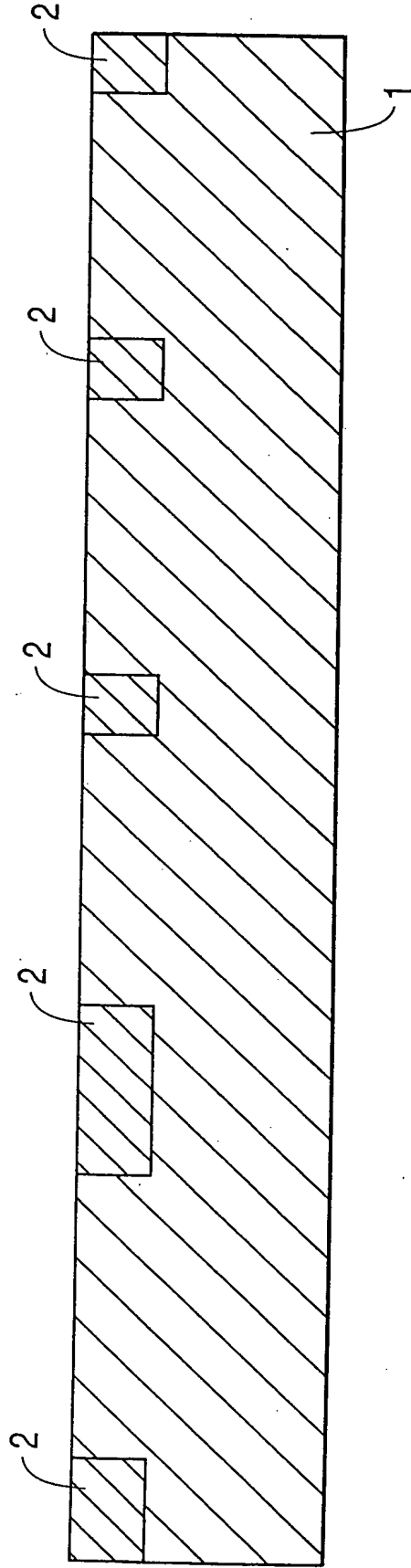


FIG. 6

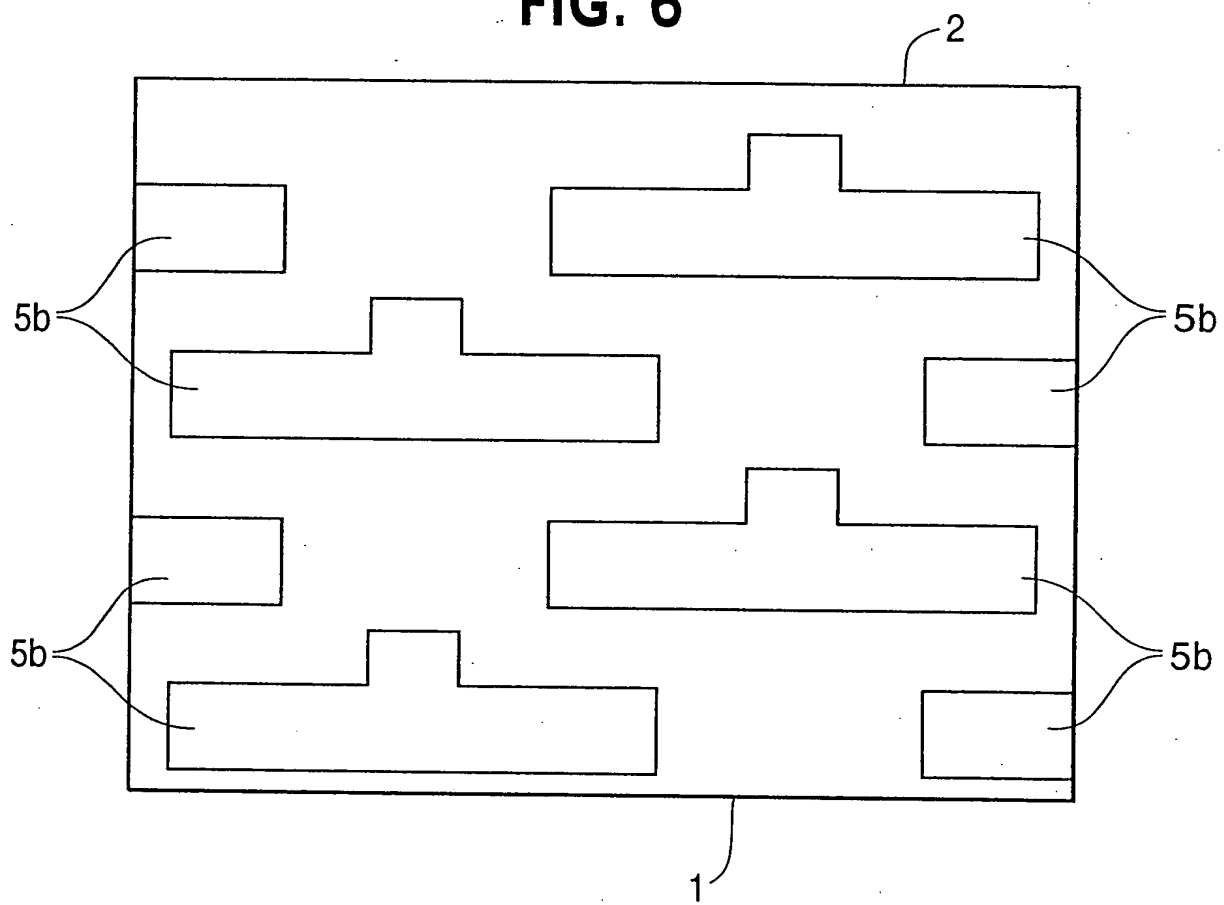


FIG. 7

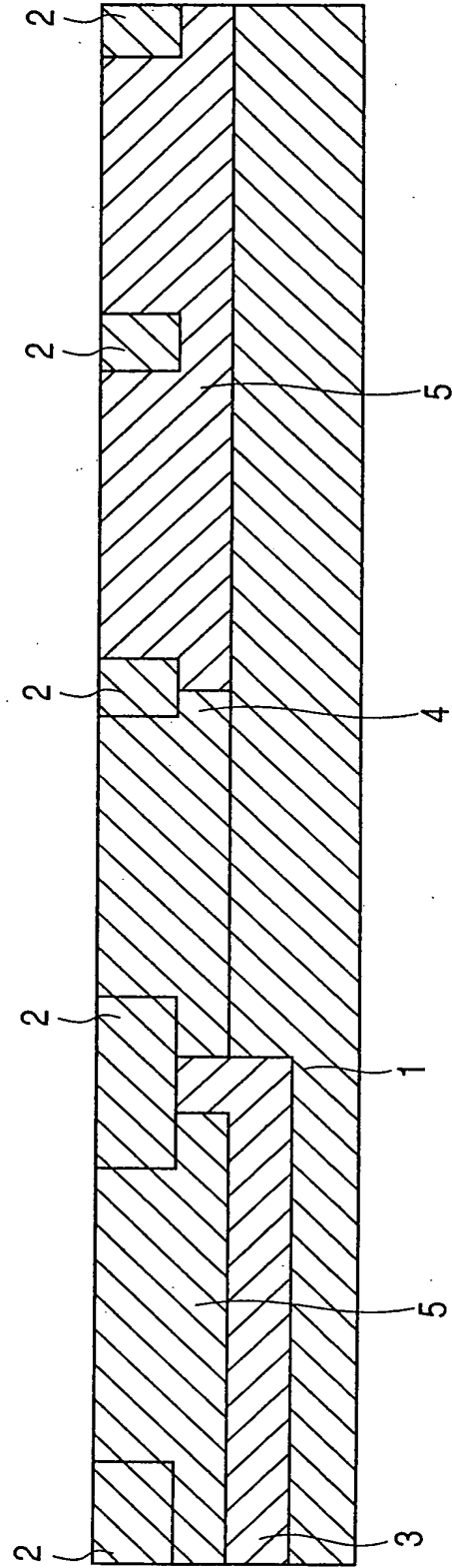


FIG. 8

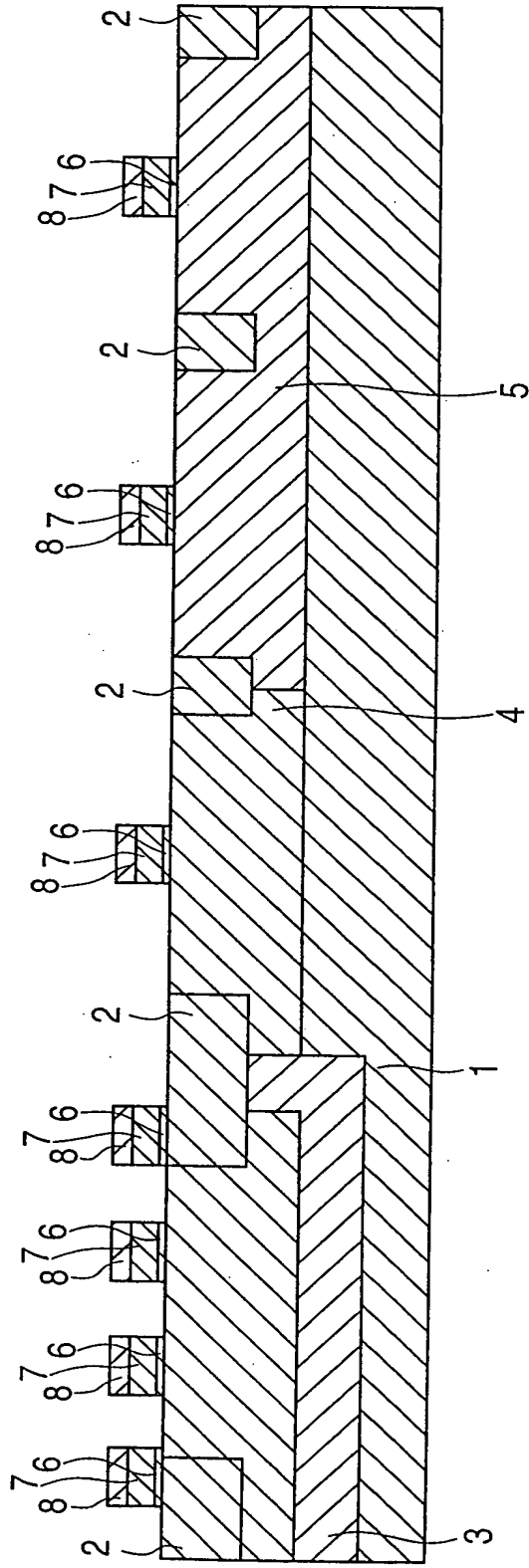


FIG. 9

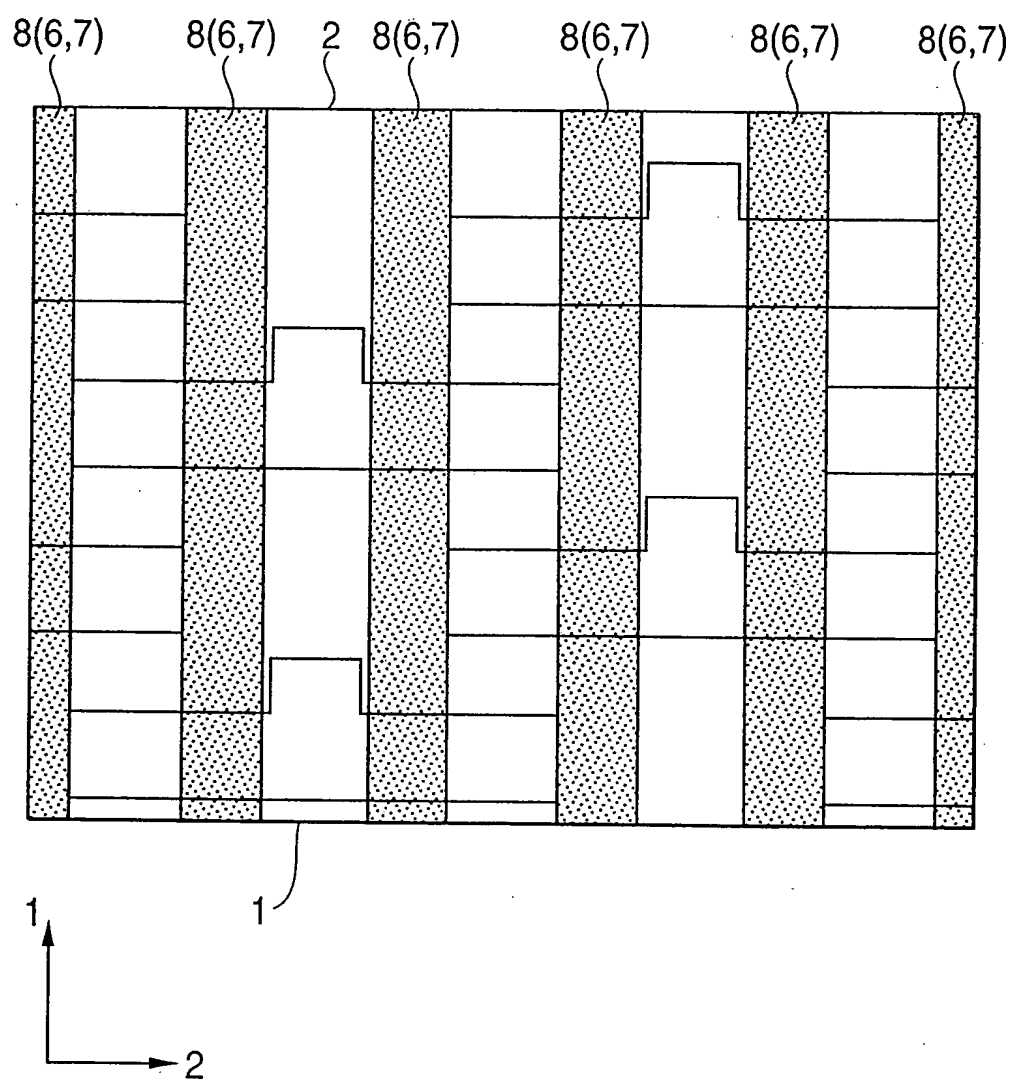


FIG. 10

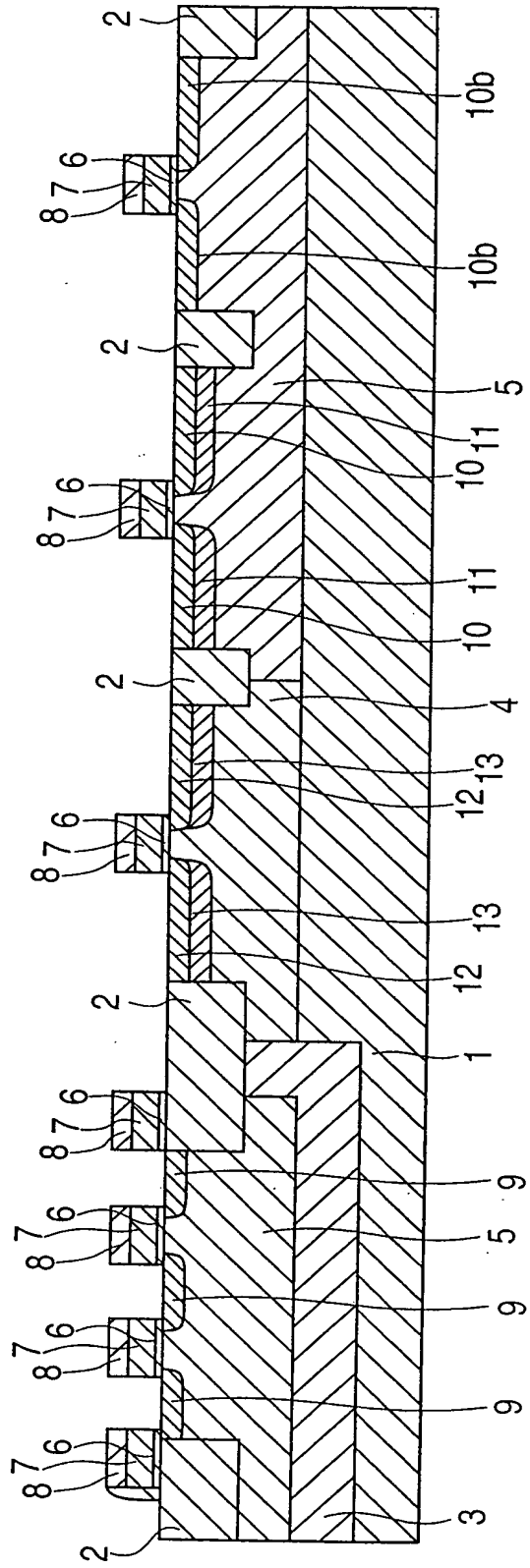
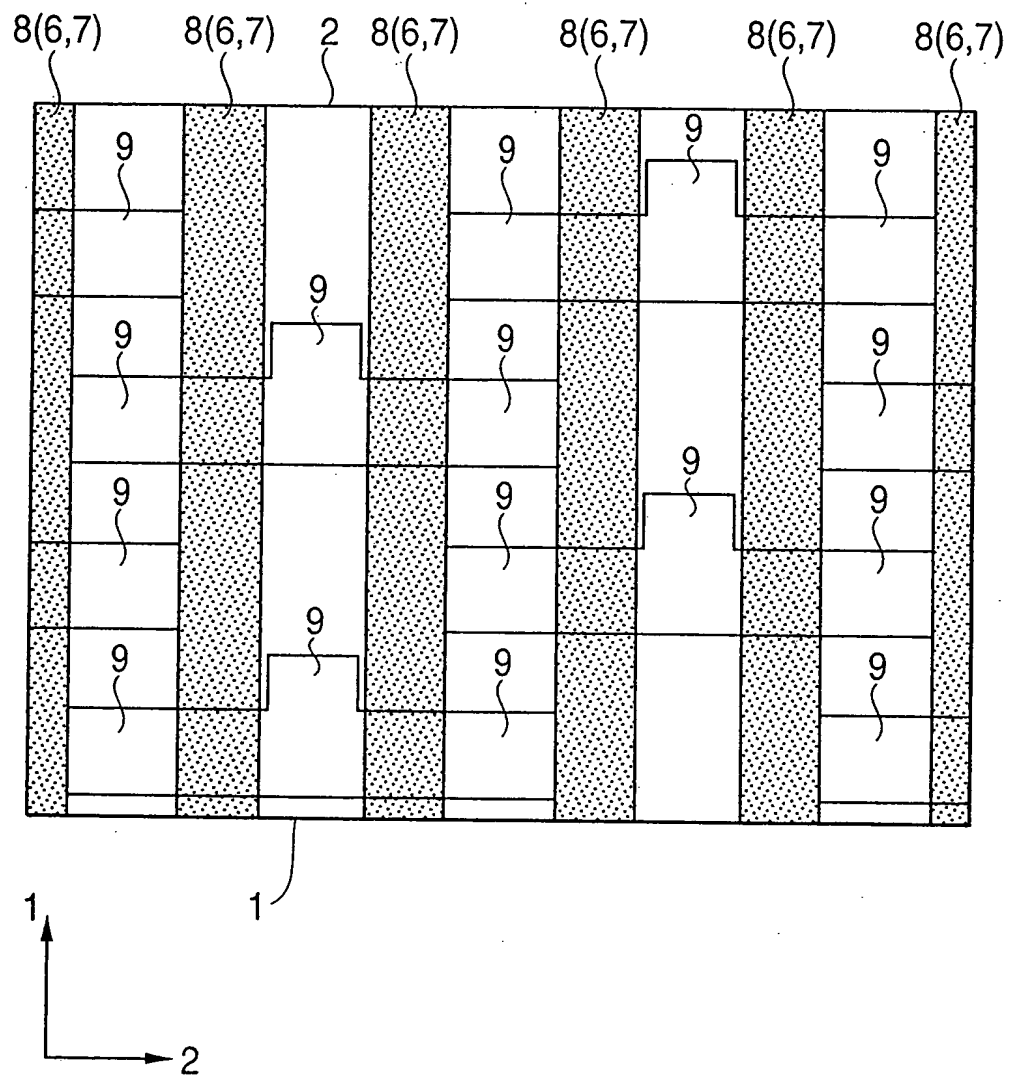


FIG. 11



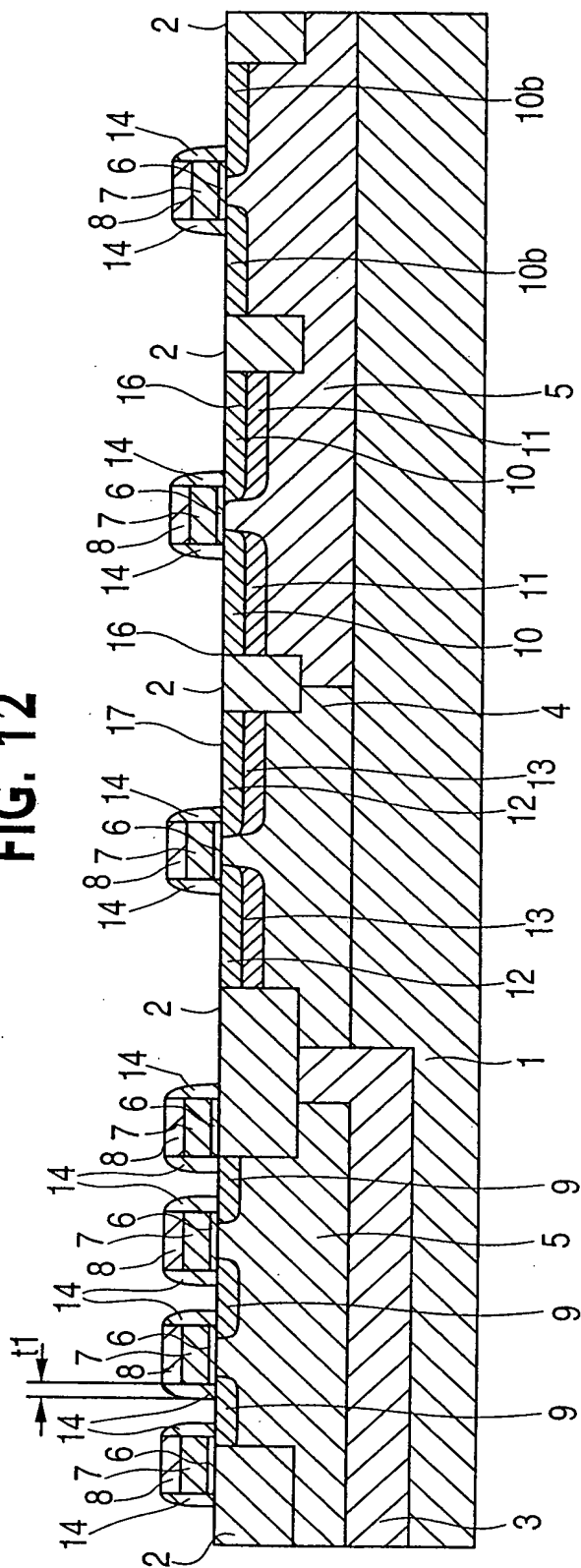
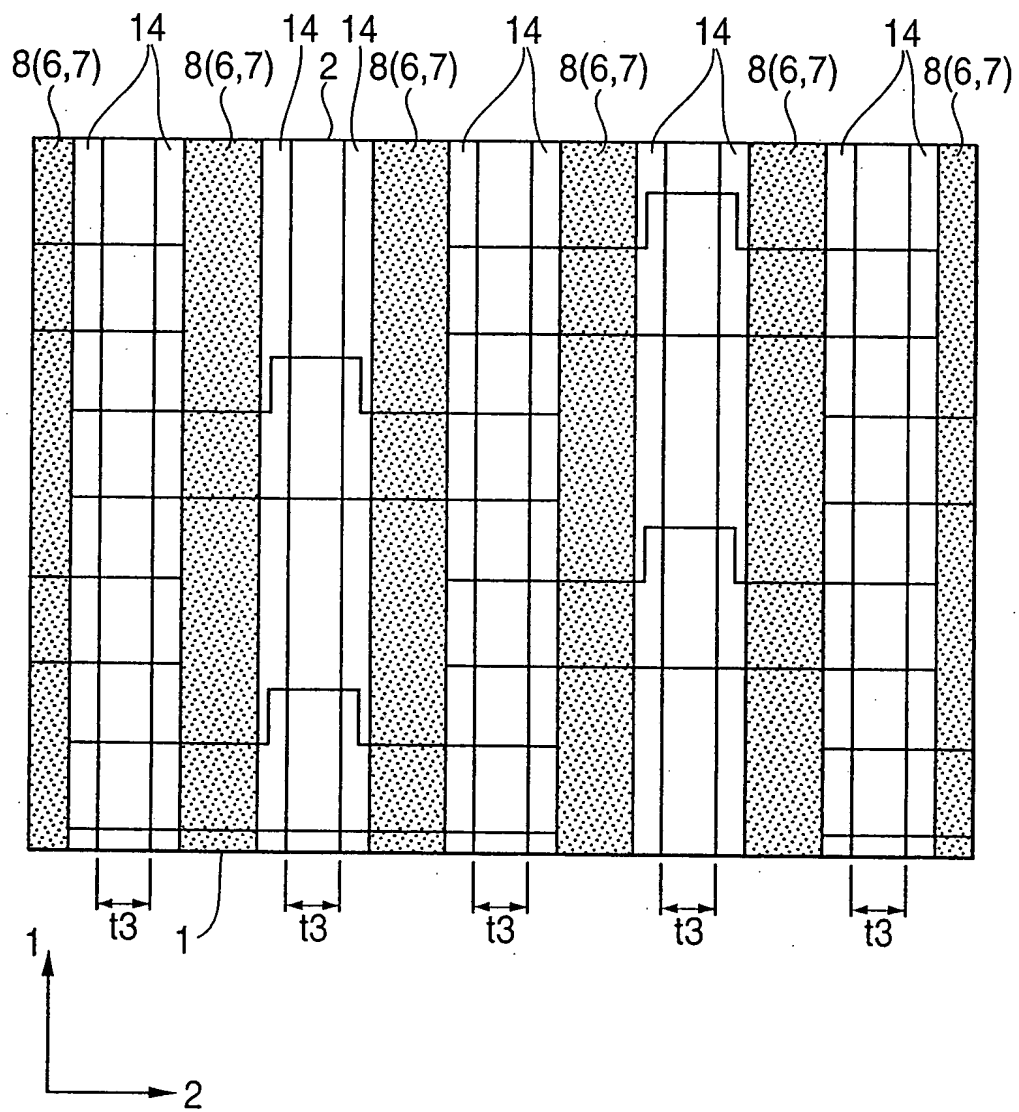
[illegible]

FIG. 13



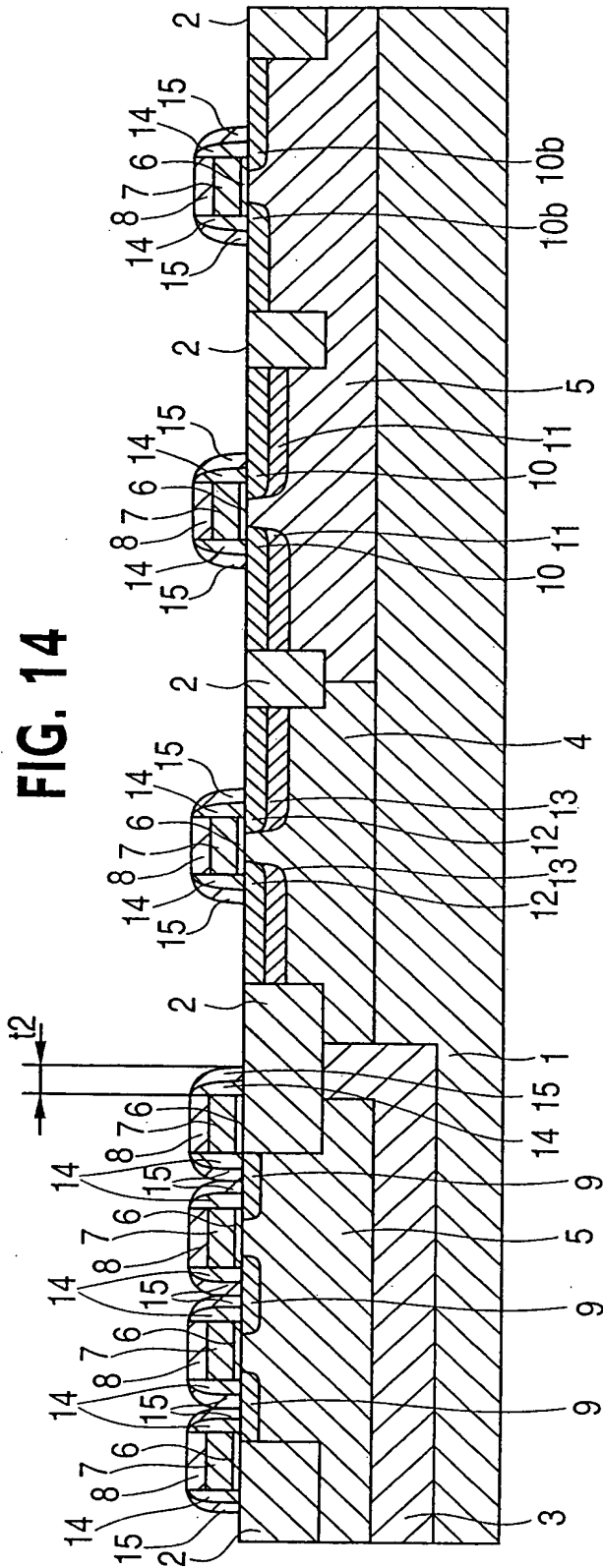


FIG. 14

FIG. 15

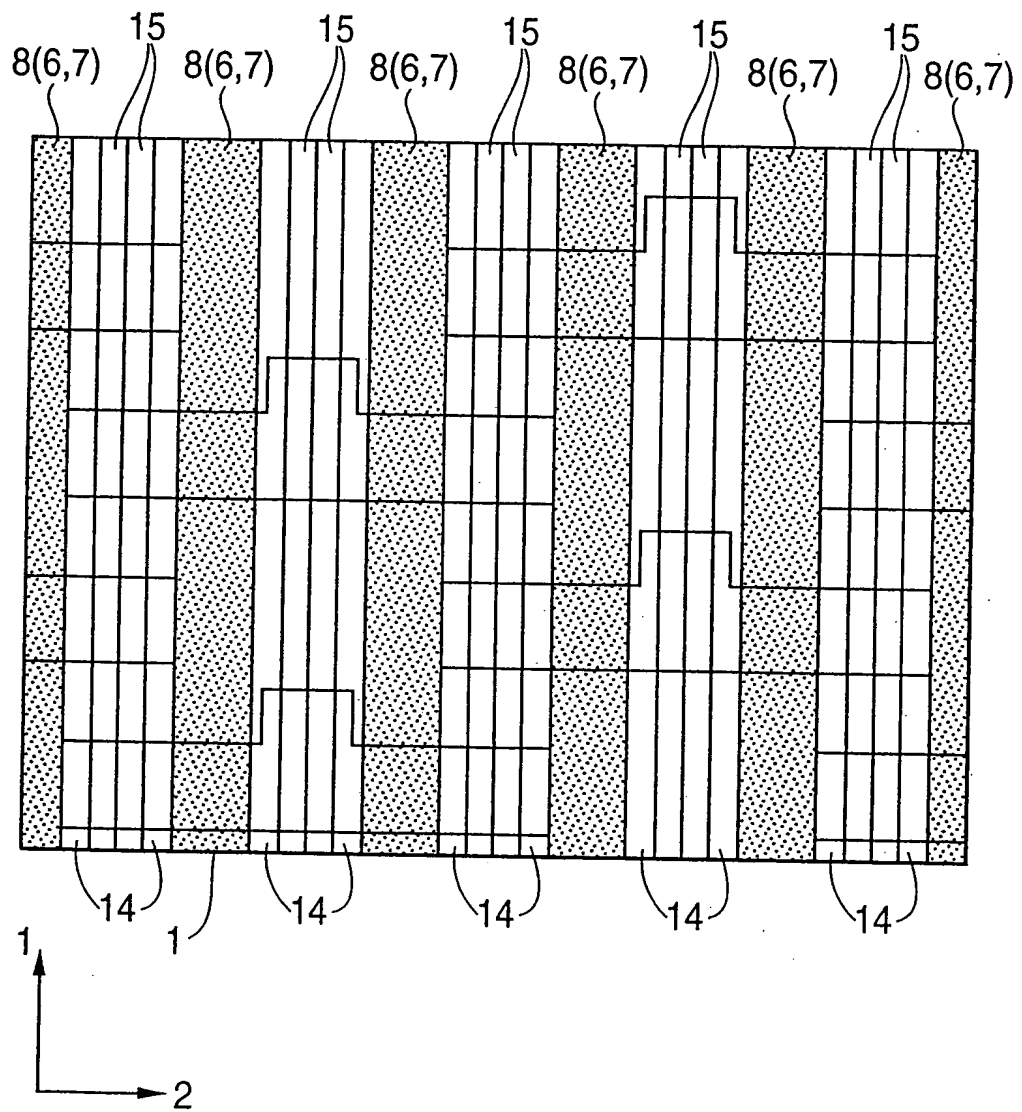


FIG. 16

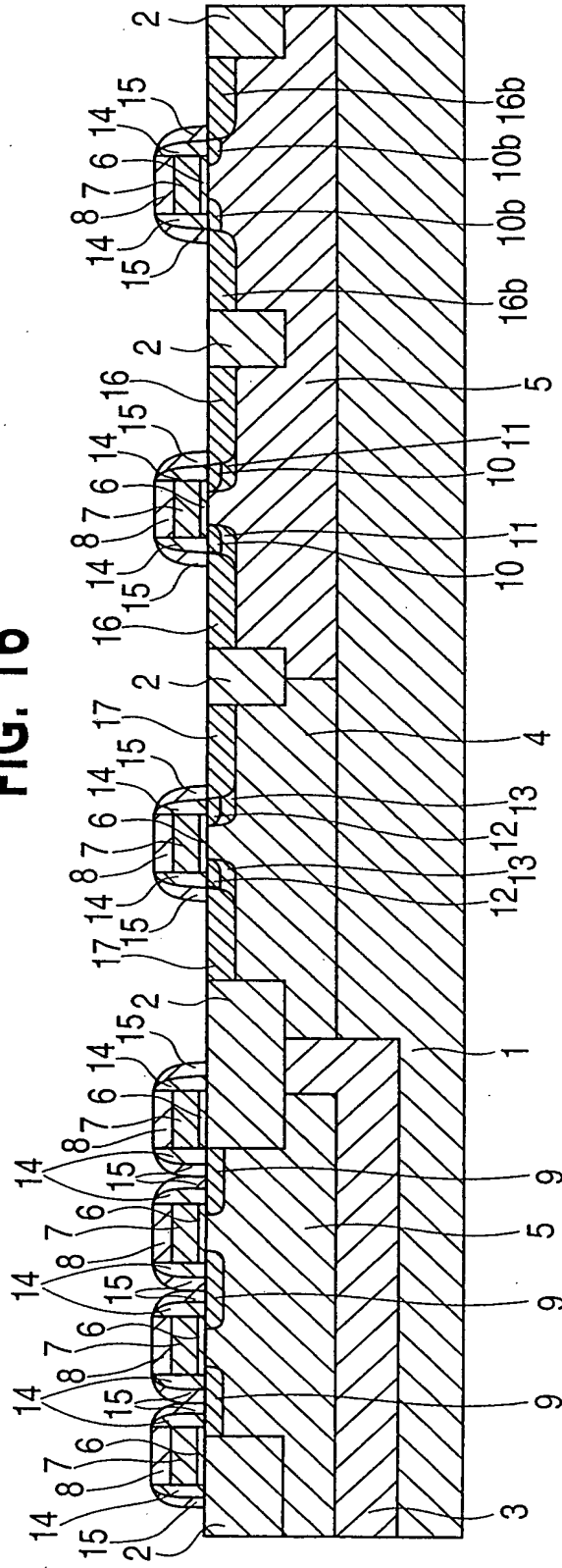


FIG. 17

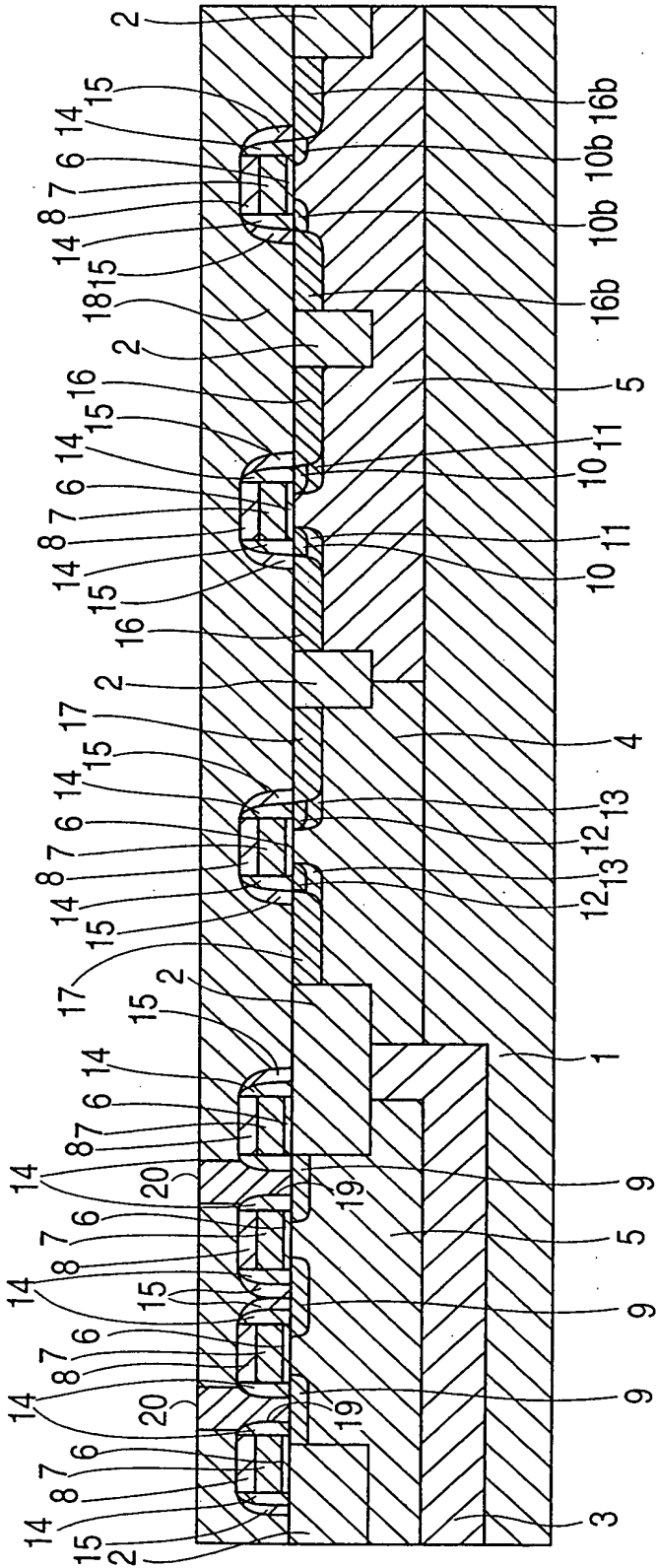


FIG. 18

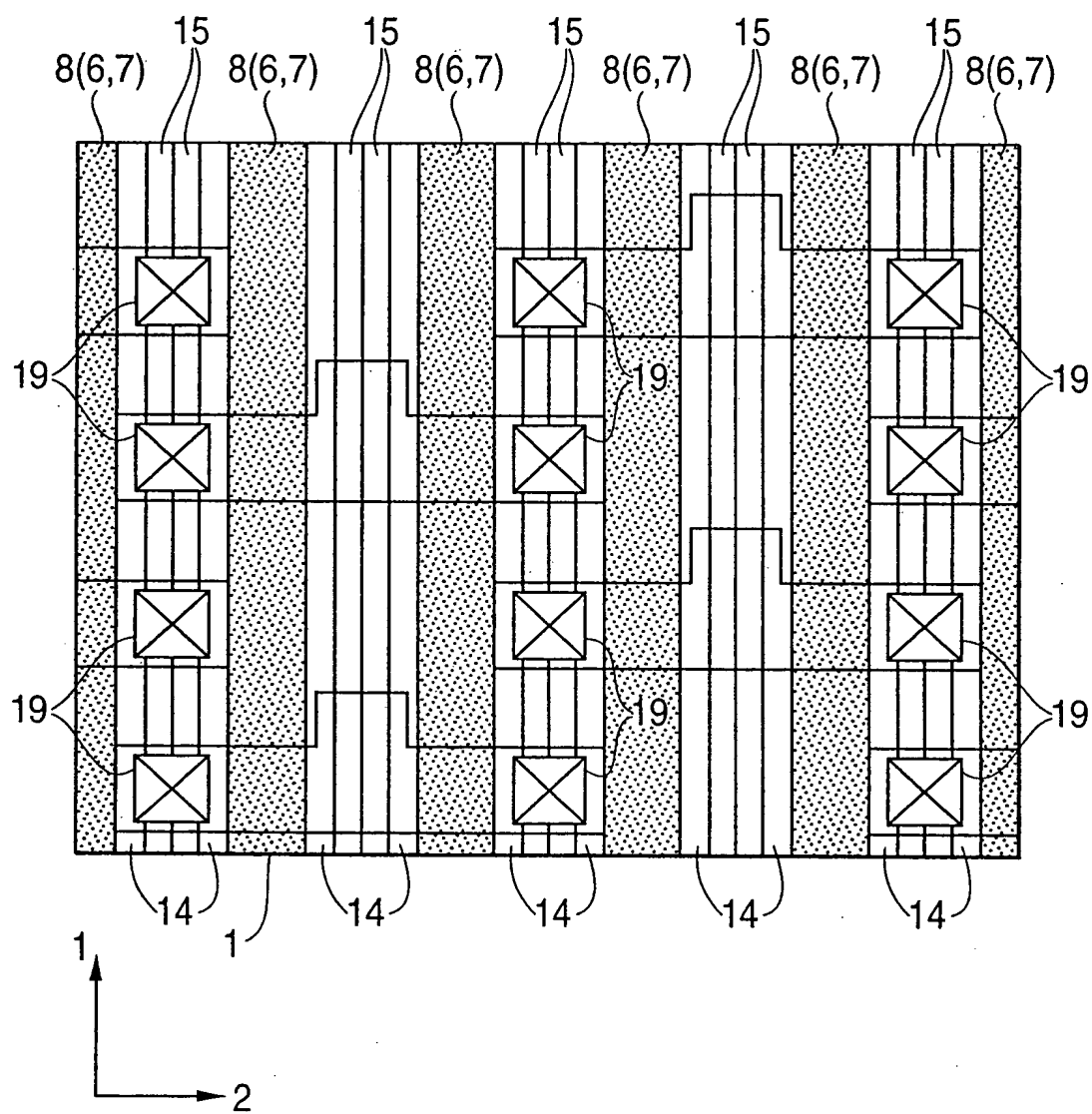


FIG. 19

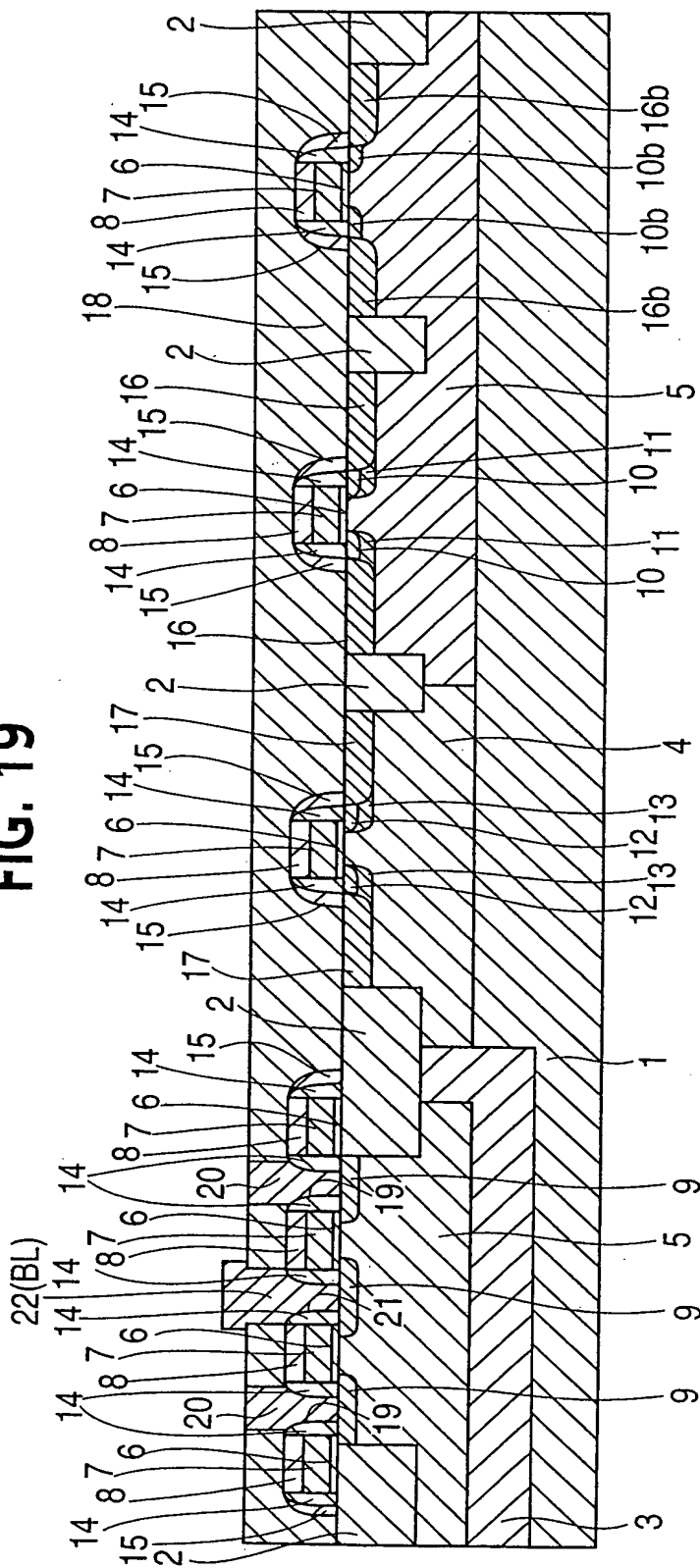
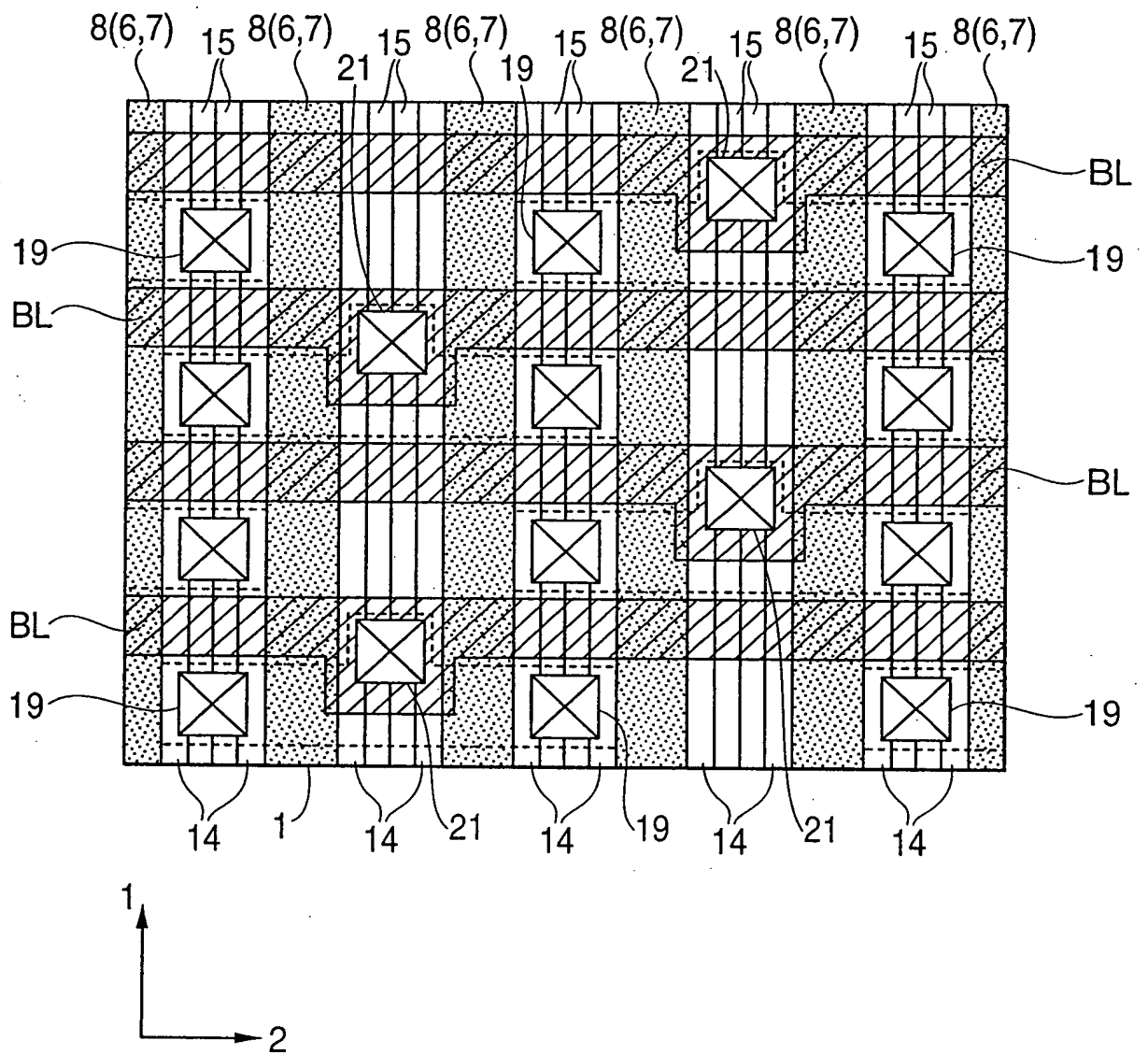
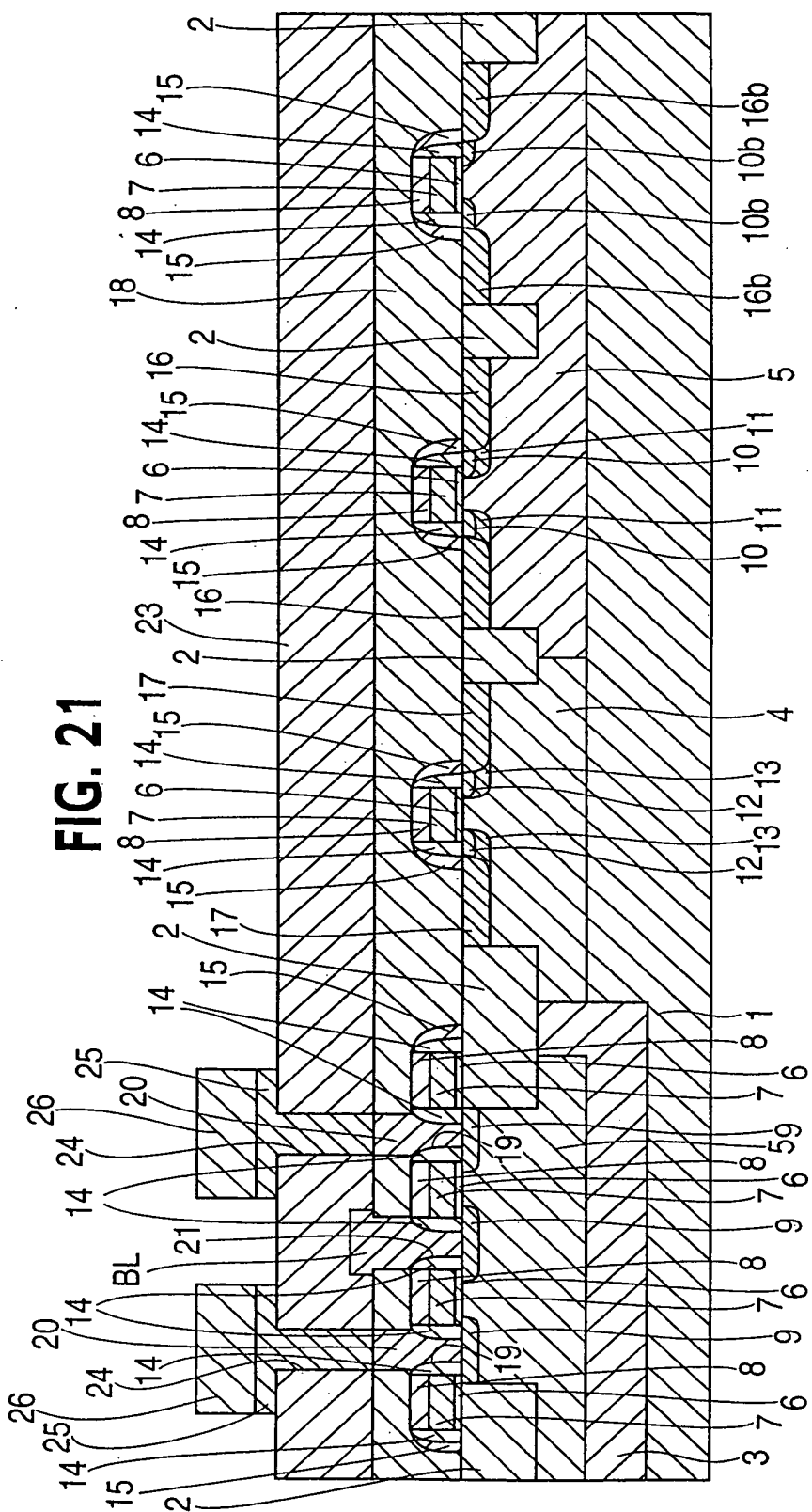


FIG. 20





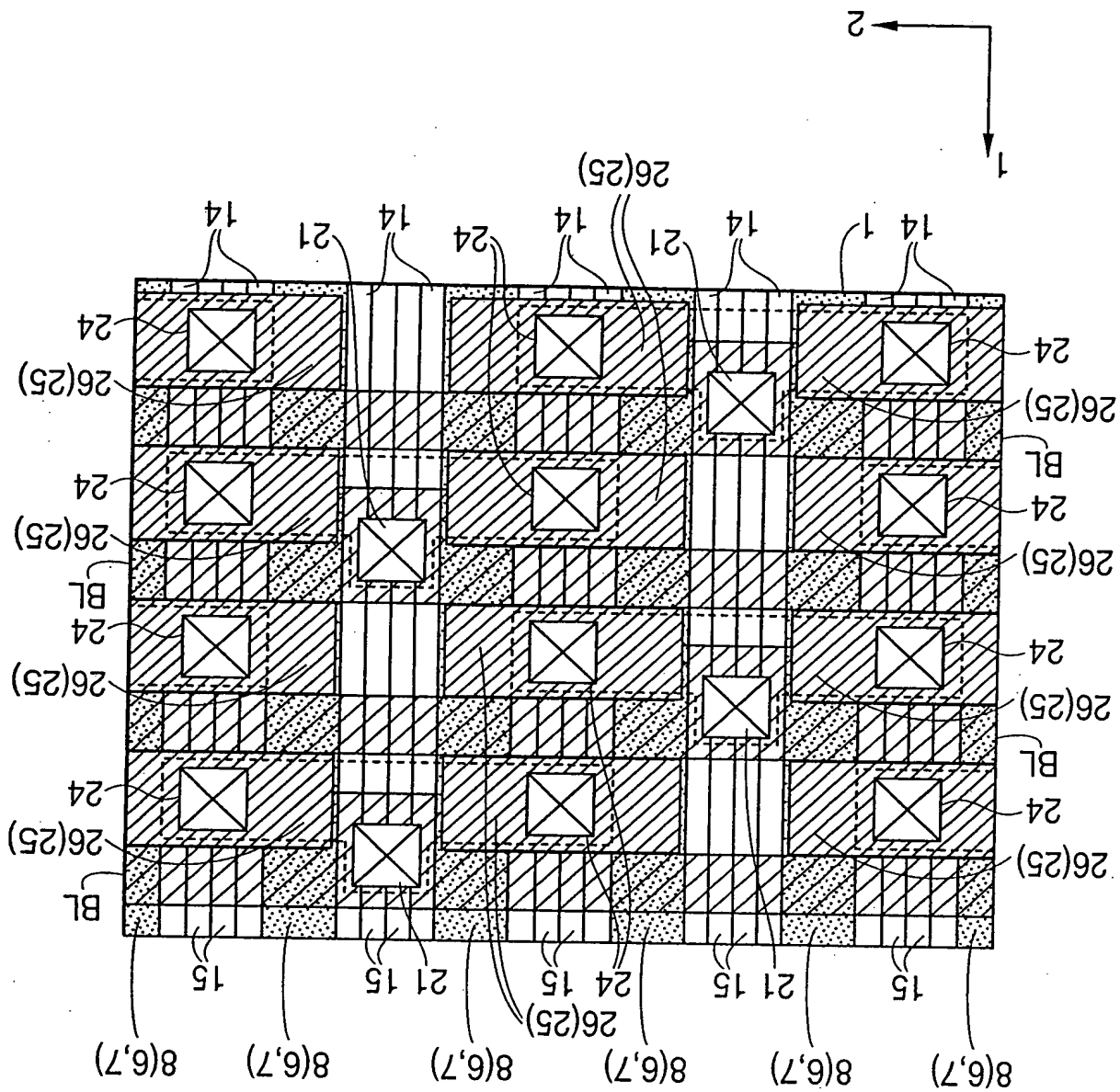
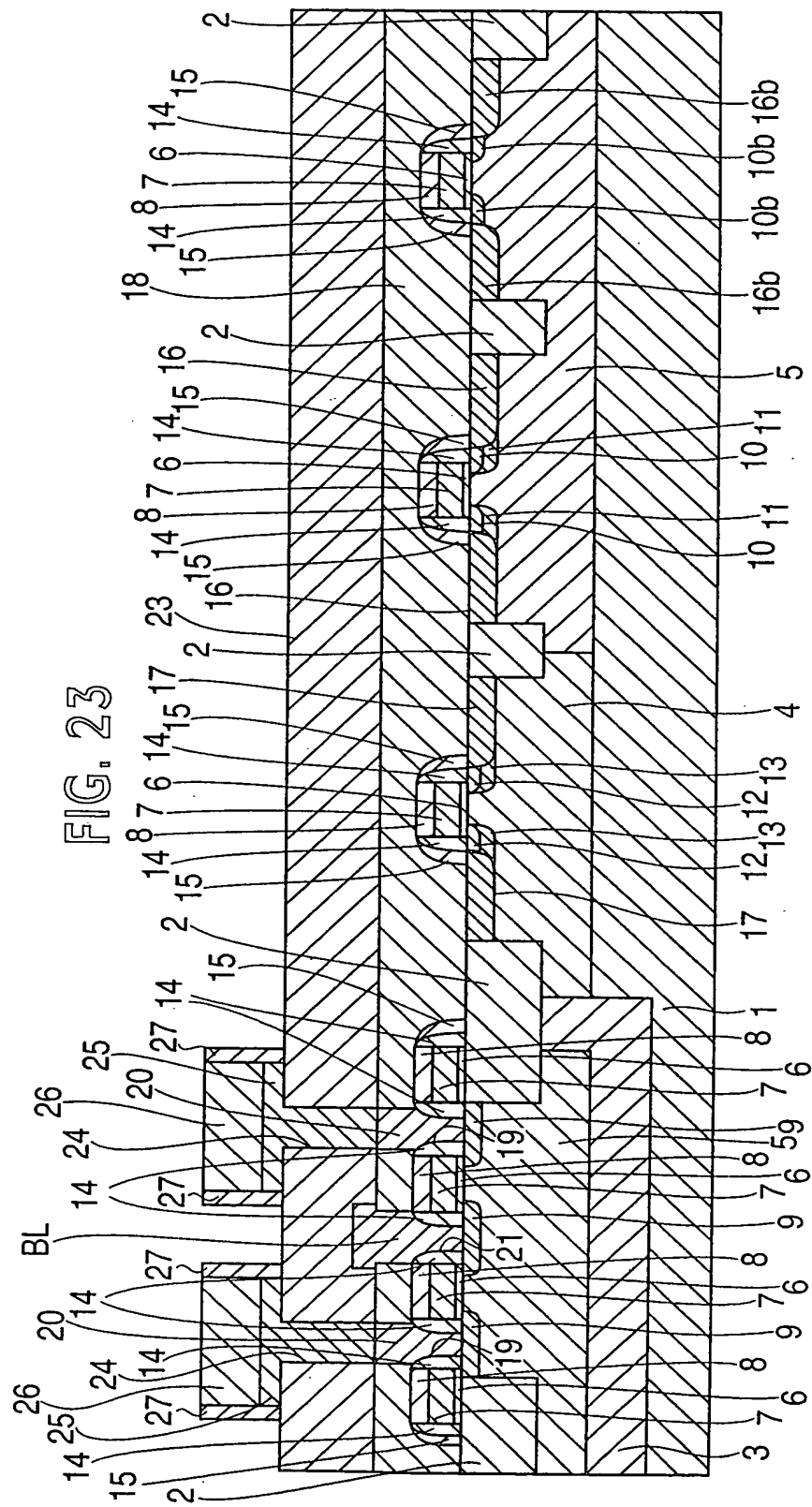


FIG. 22



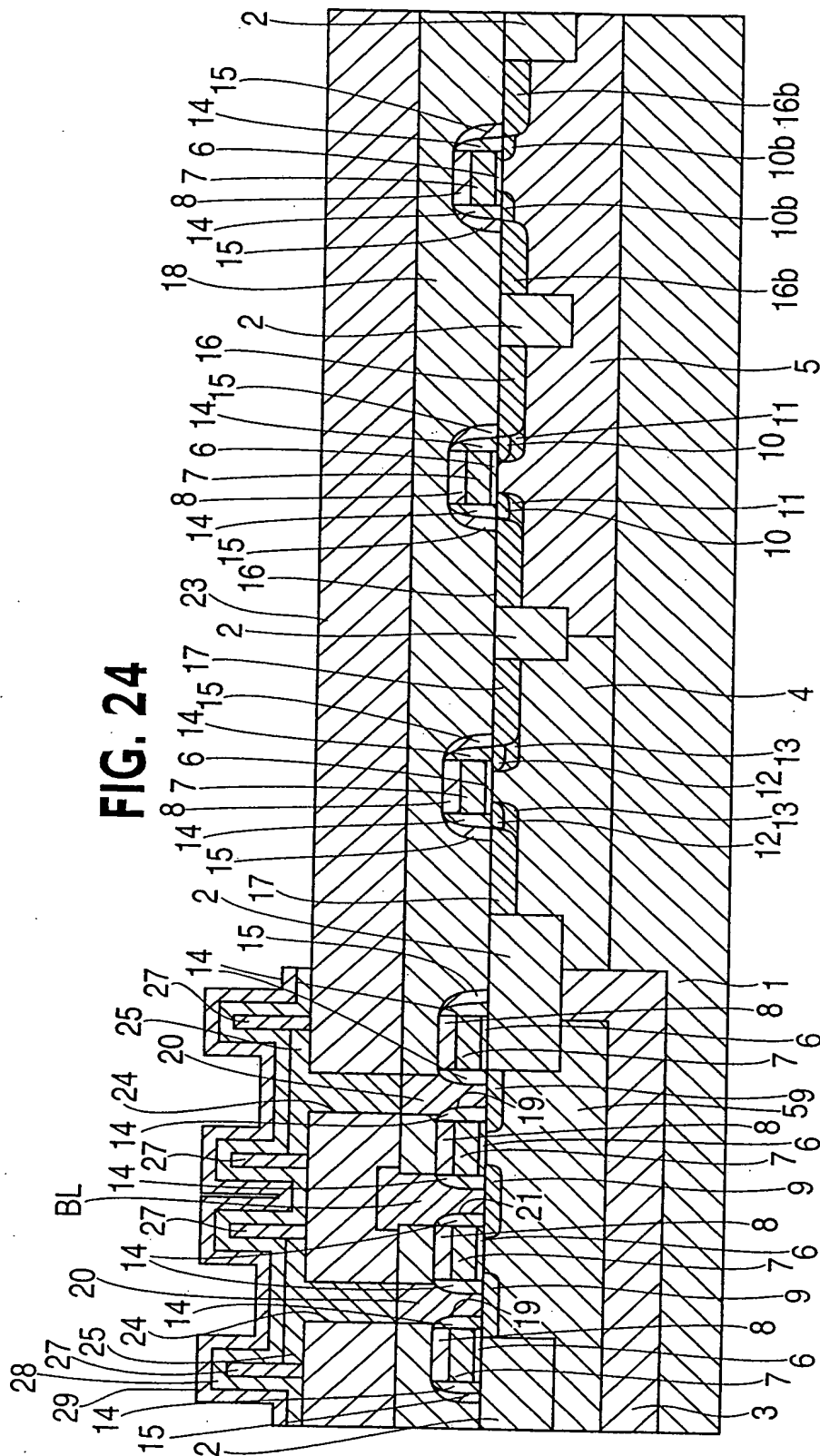


FIG. 26

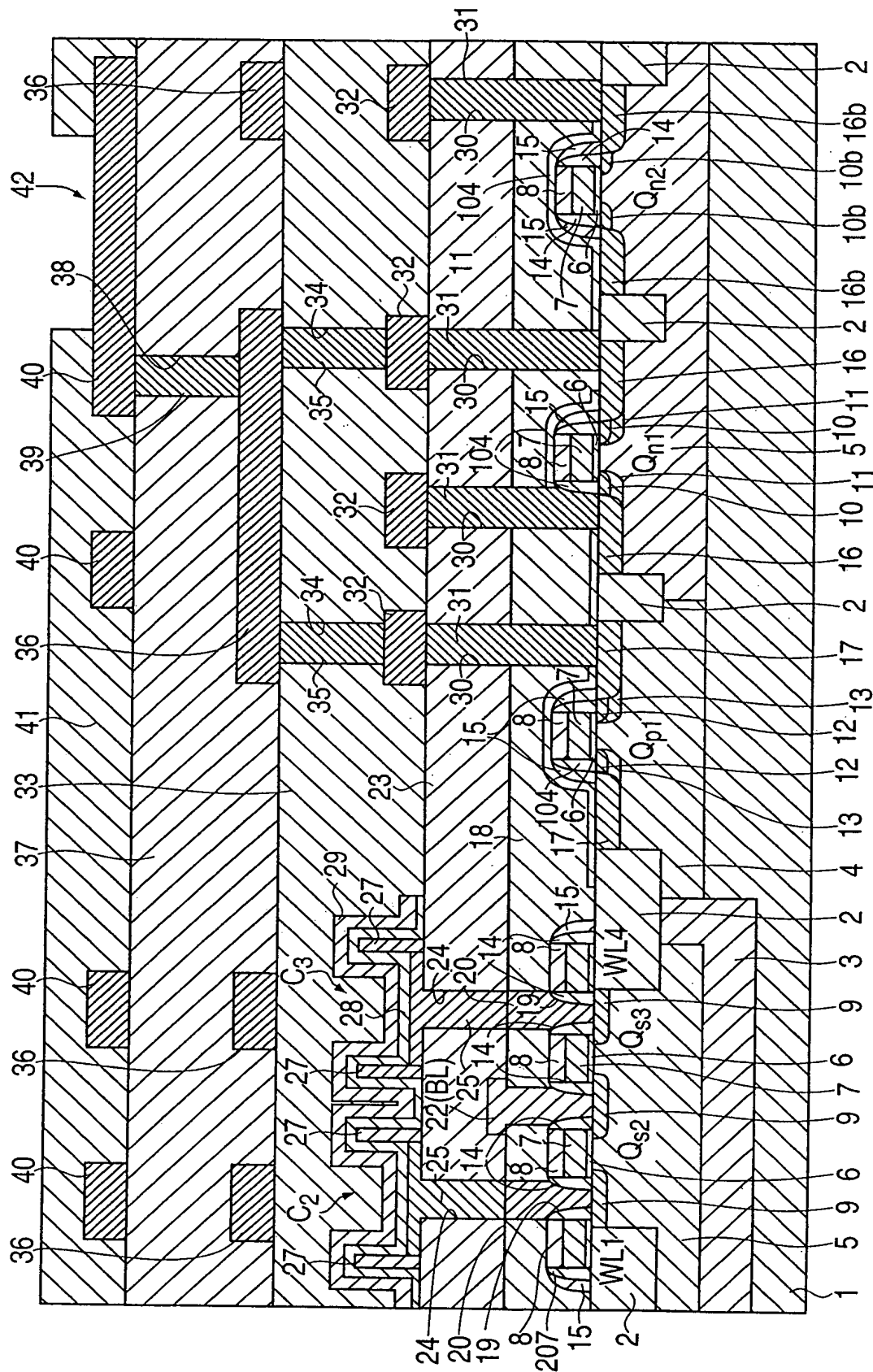
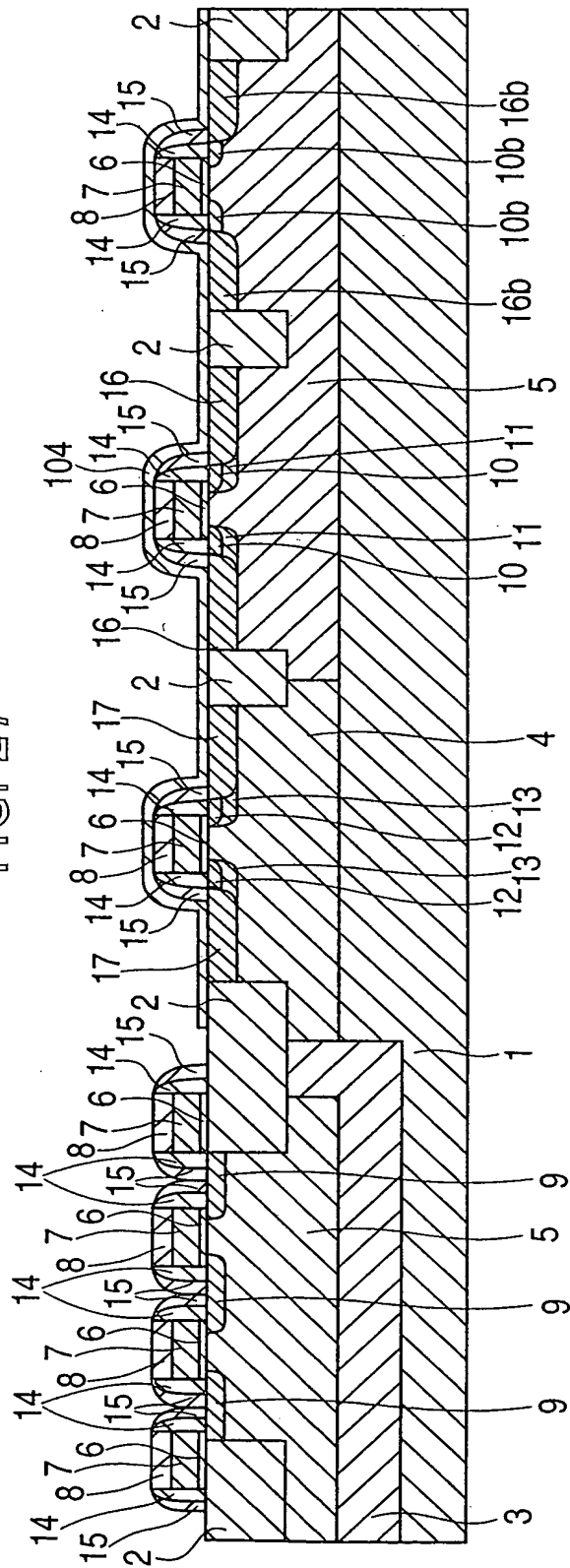


FIG. 27



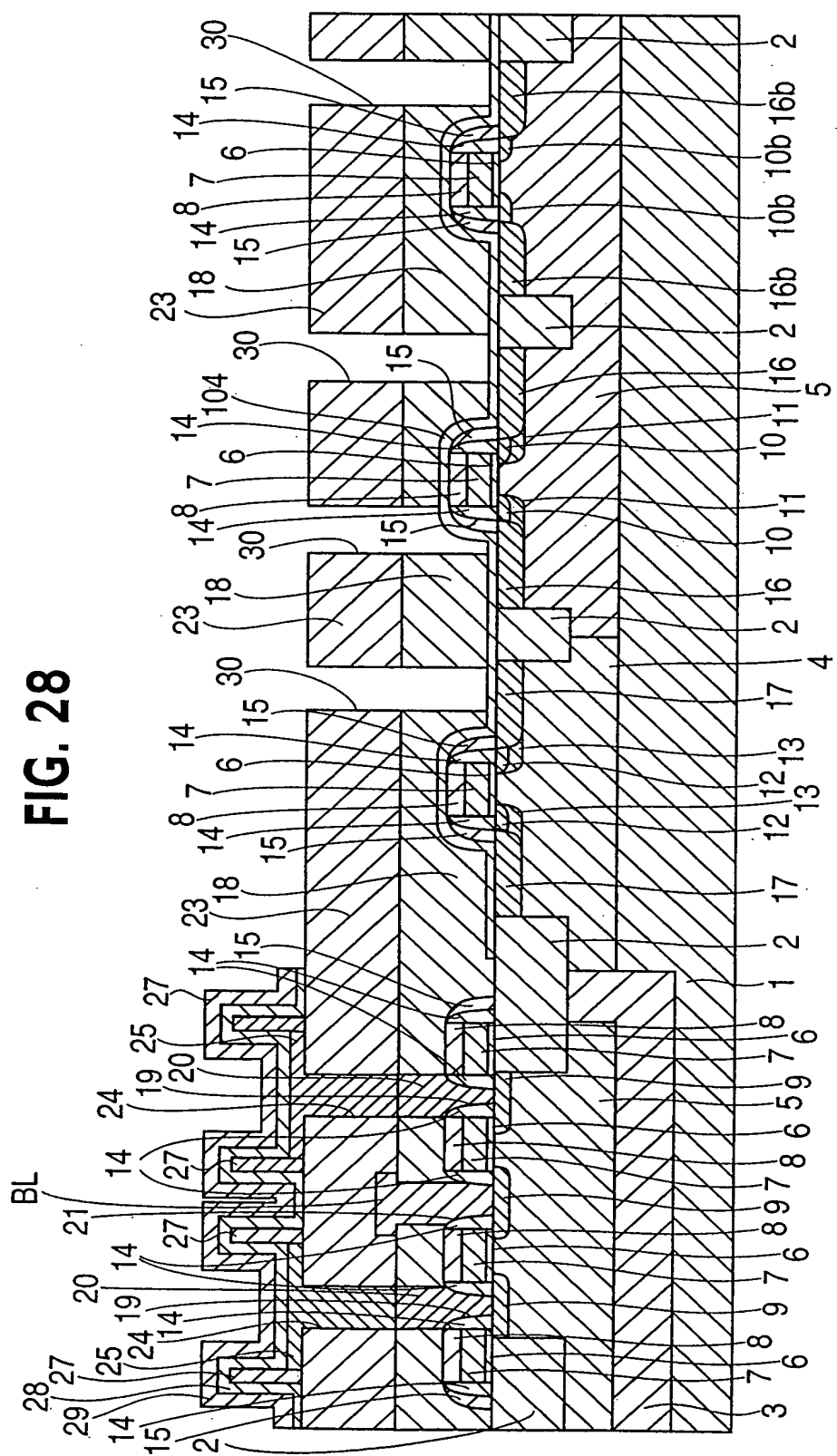


FIG. 28

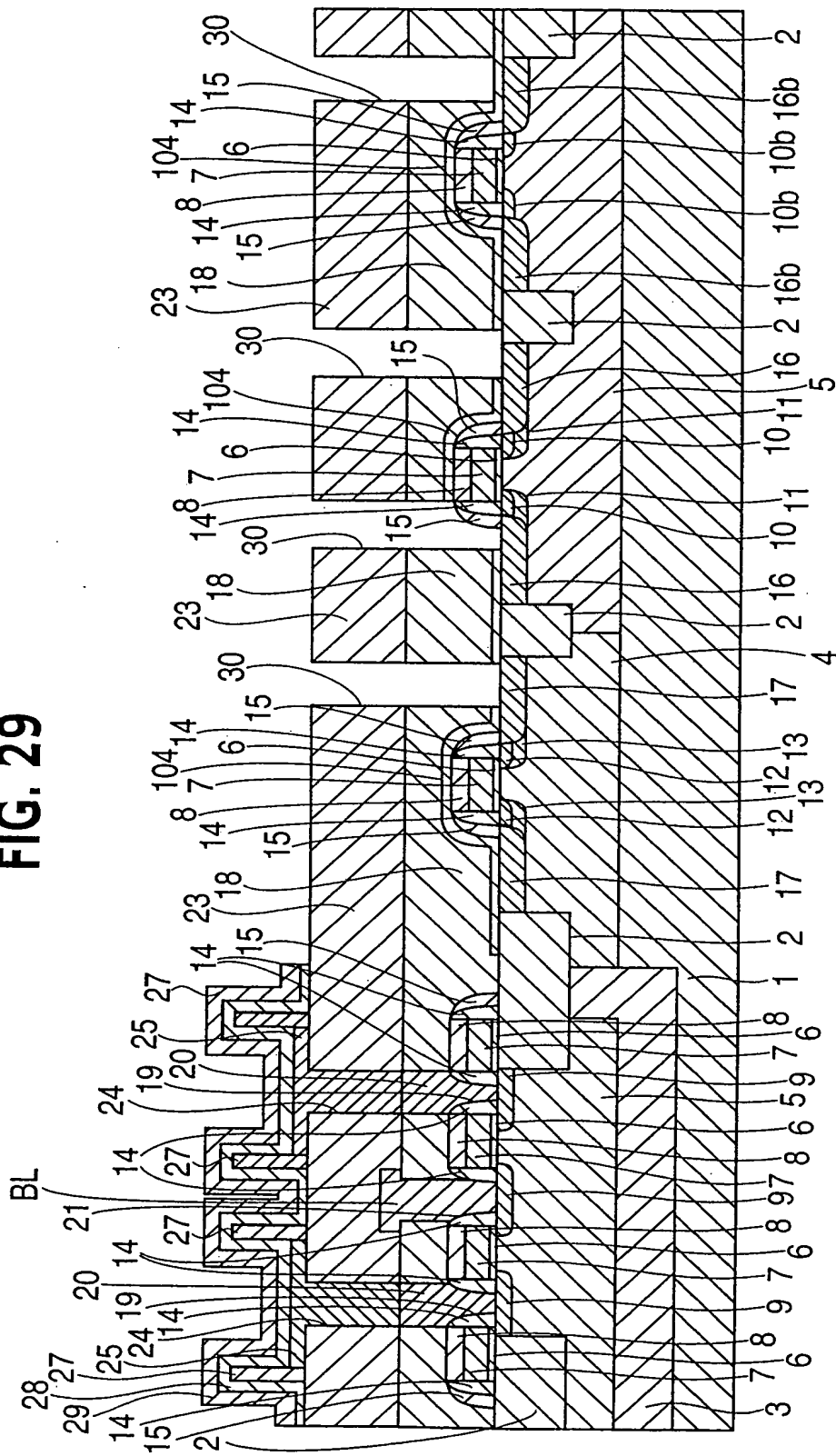


FIG. 30

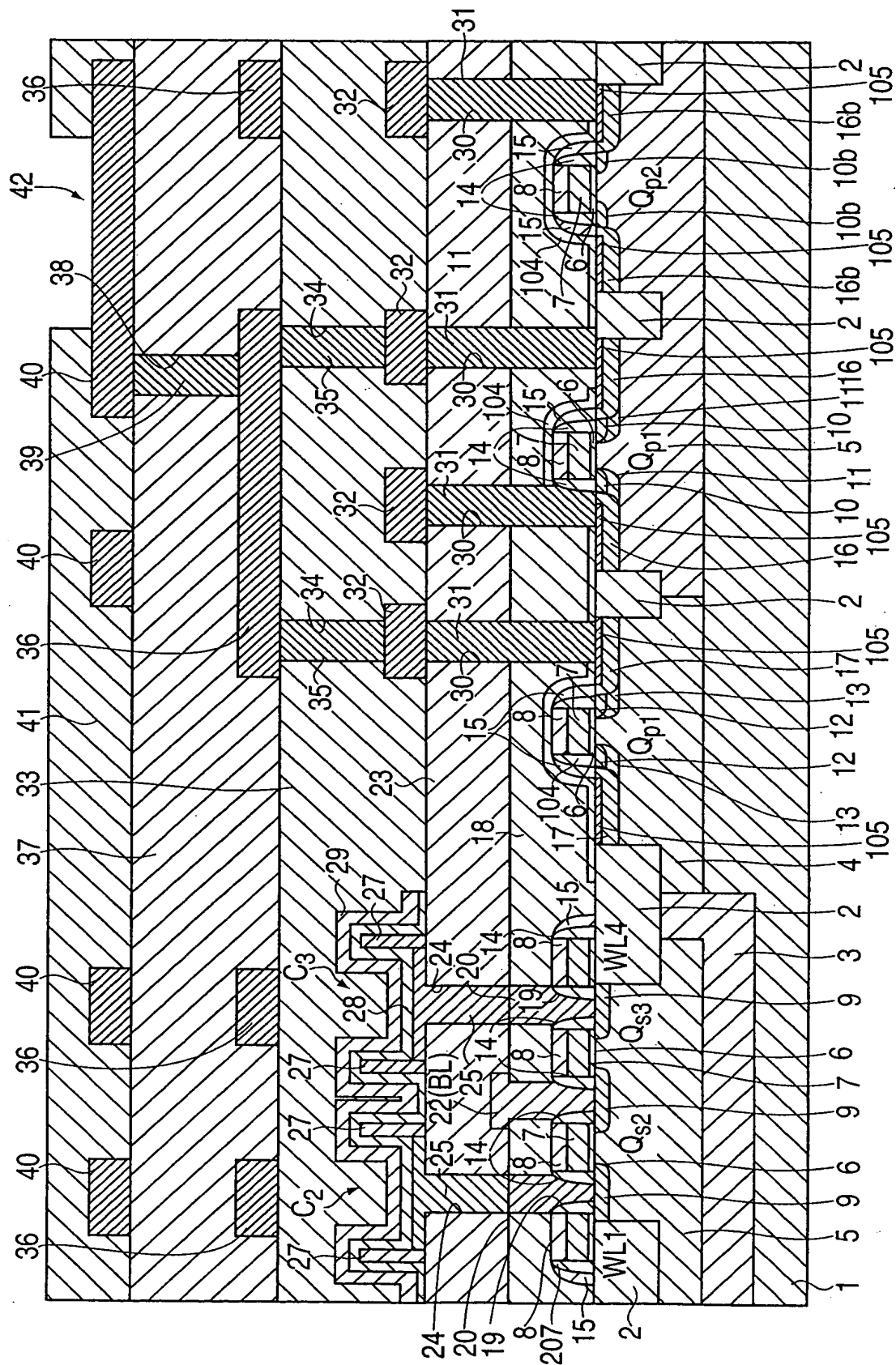


FIG. 31

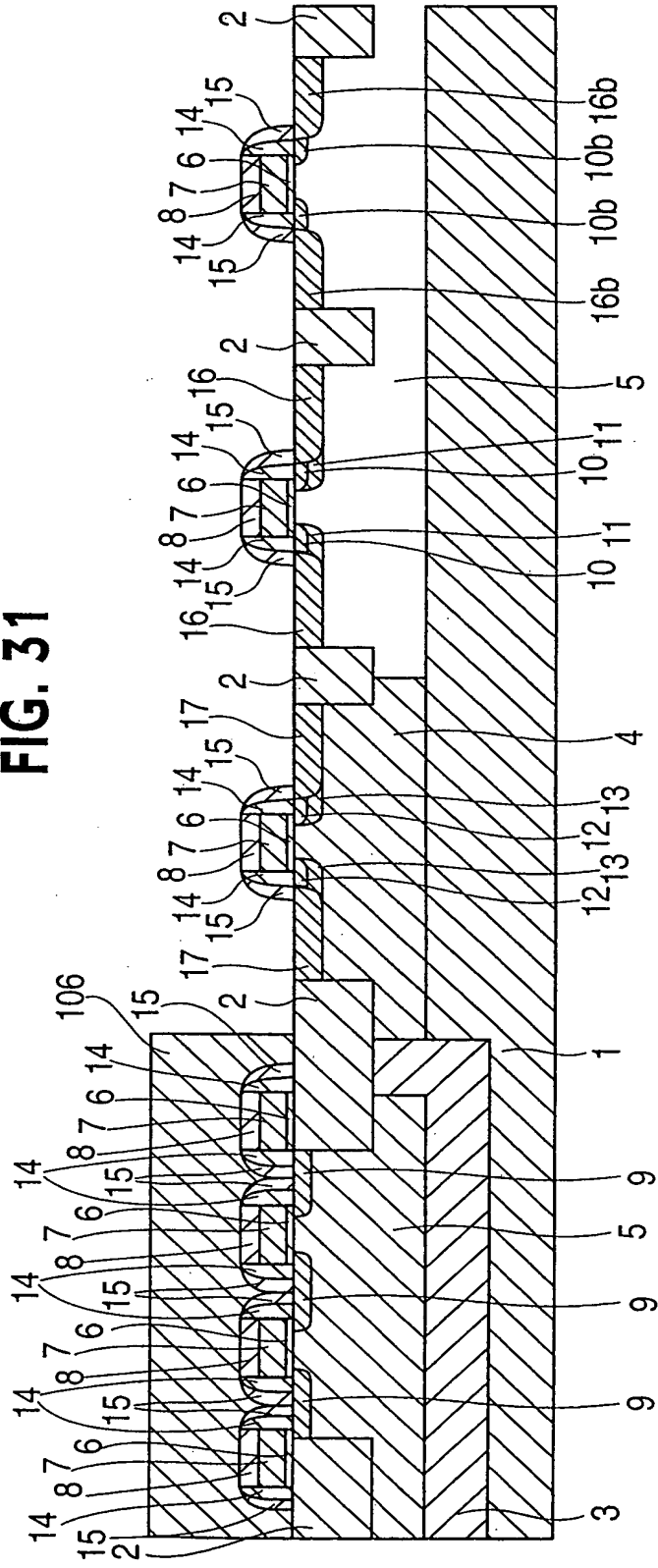


FIG. 32

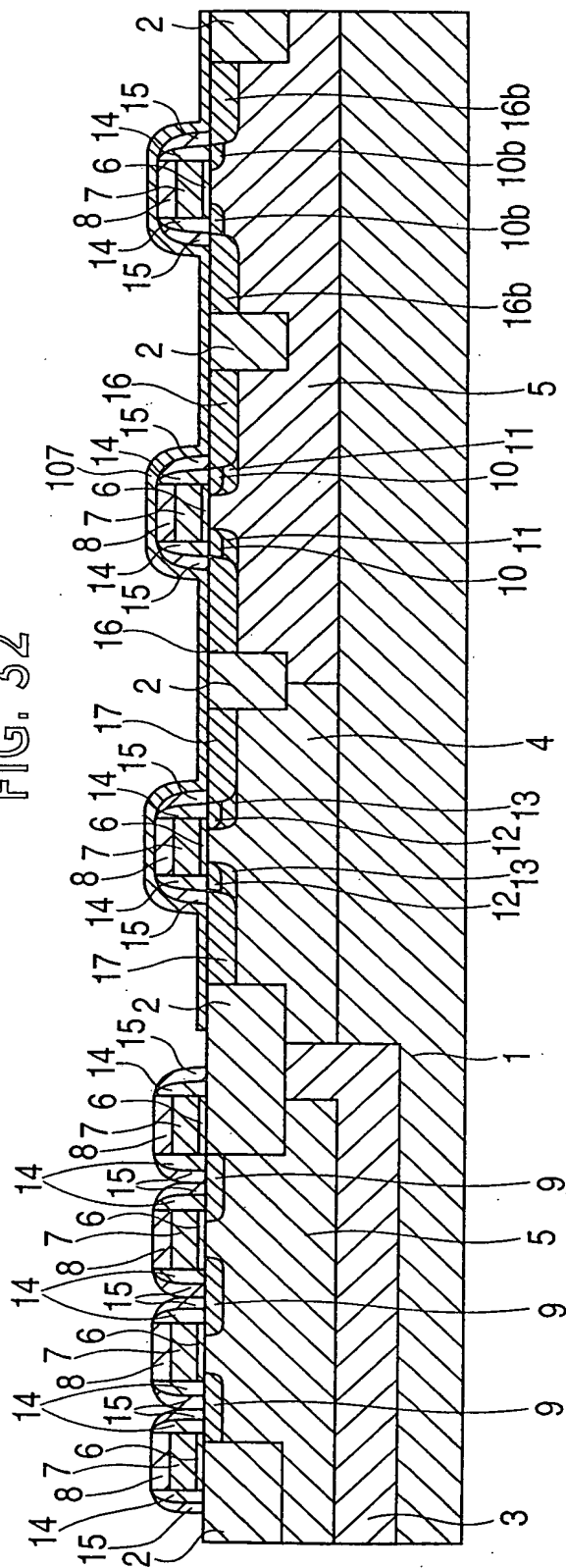


FIG. 33

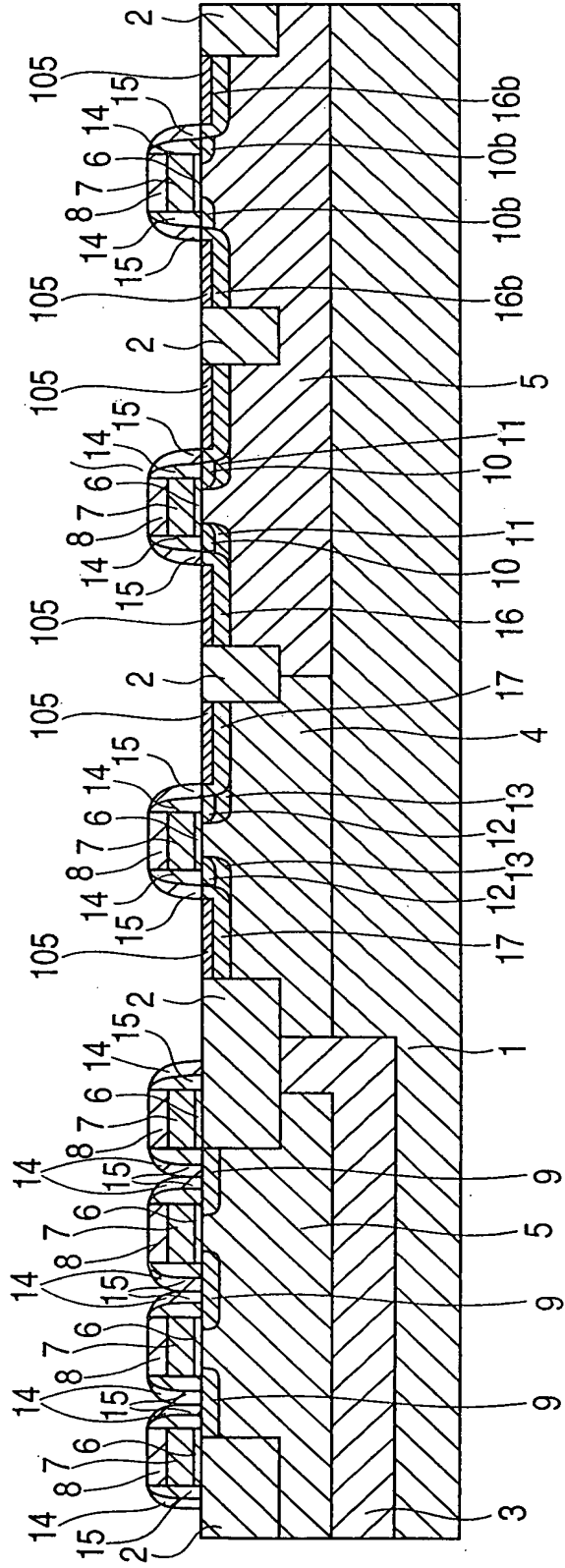


FIG. 34

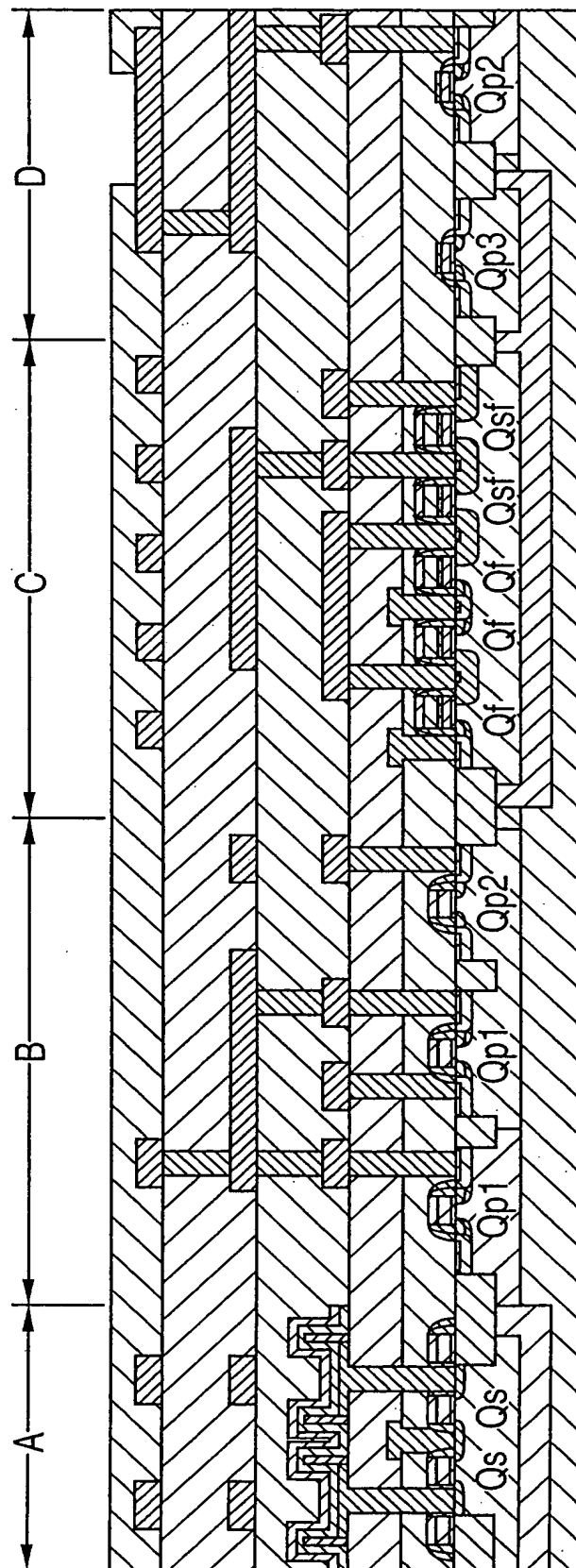


FIG. 35

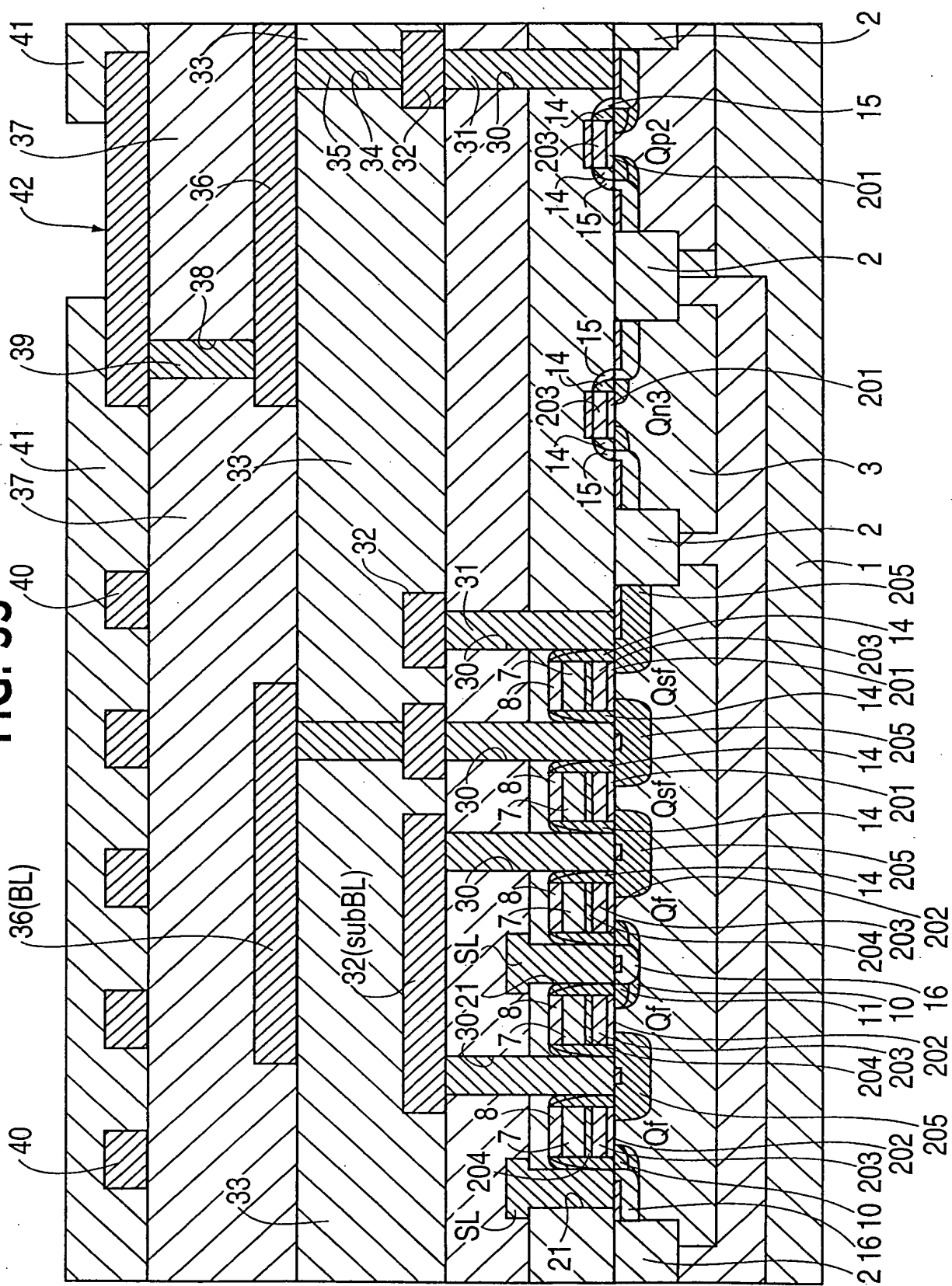


FIG. 36

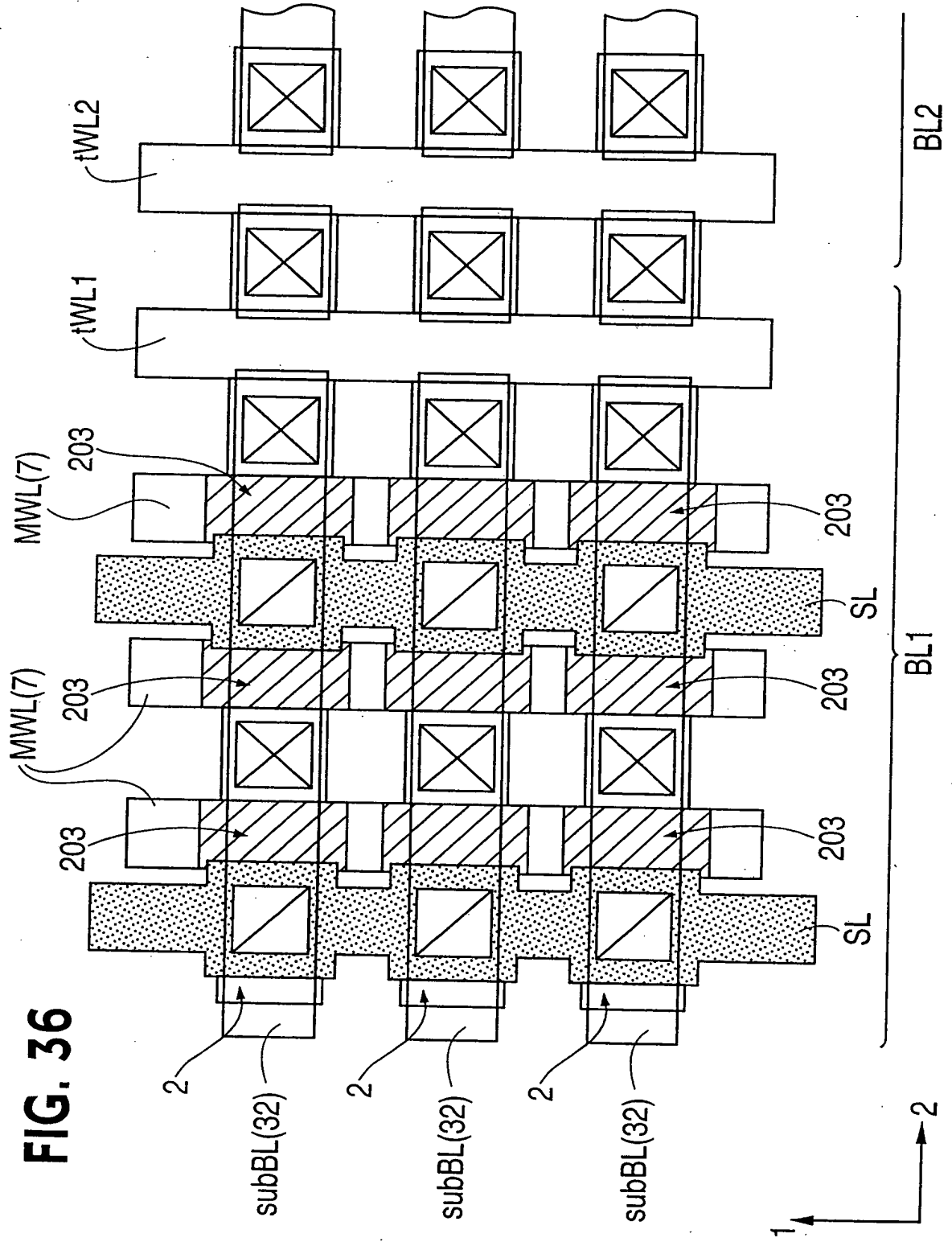


FIG. 37

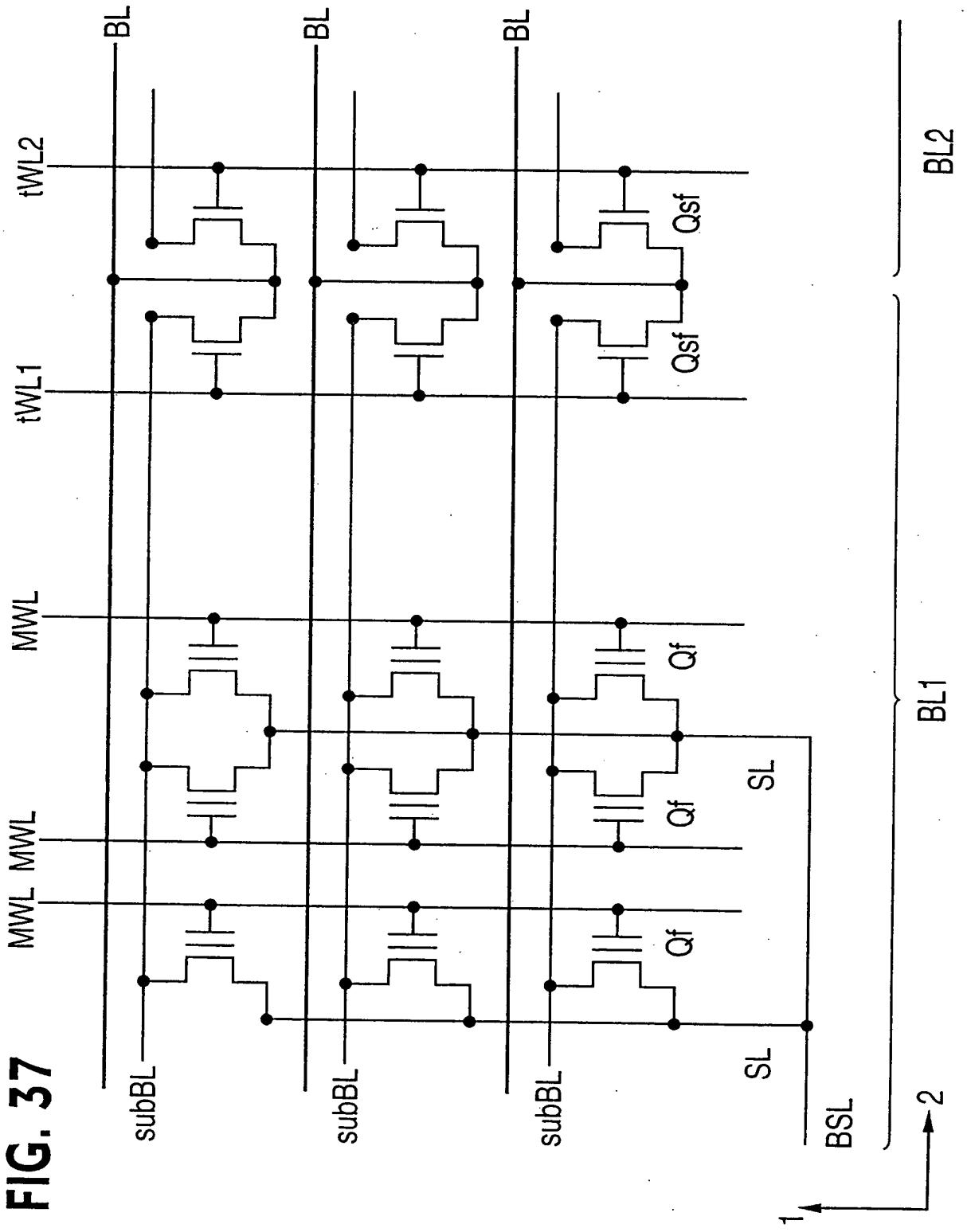


FIG. 38

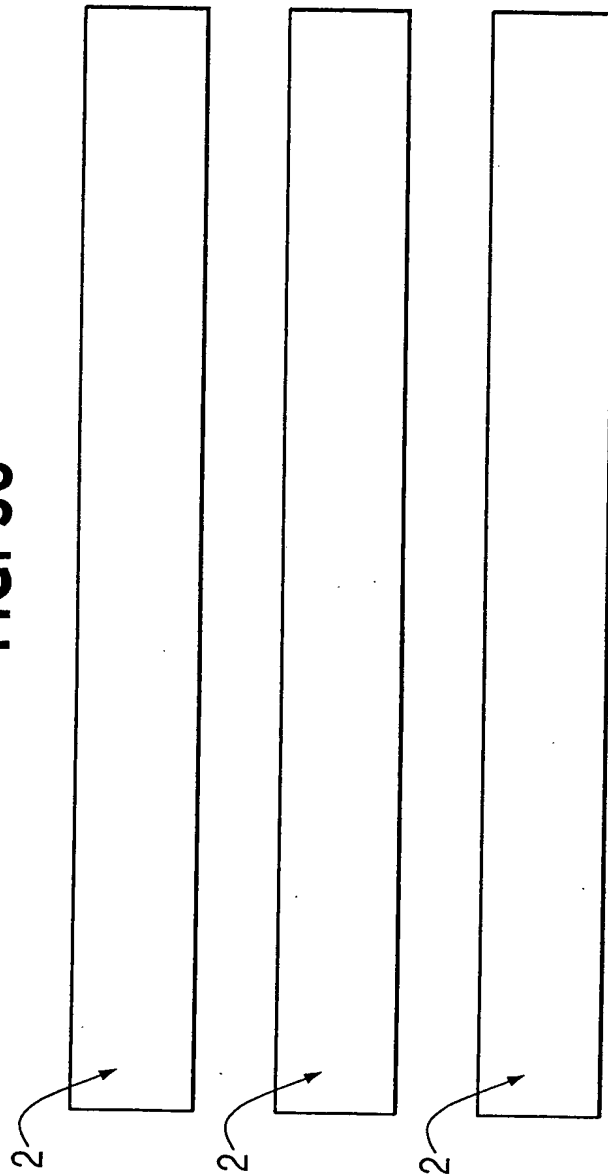


FIG. 39

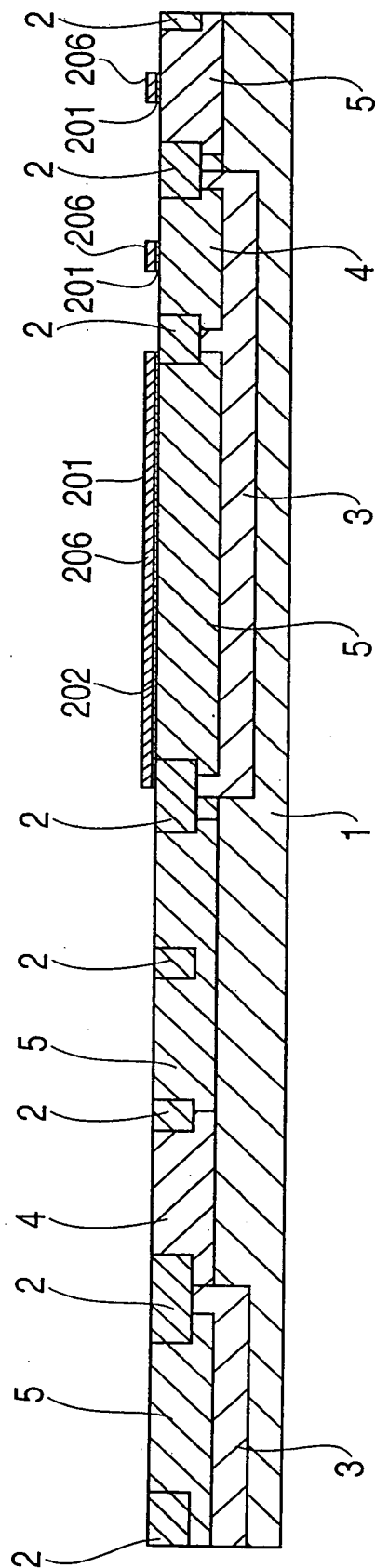


FIG. 40

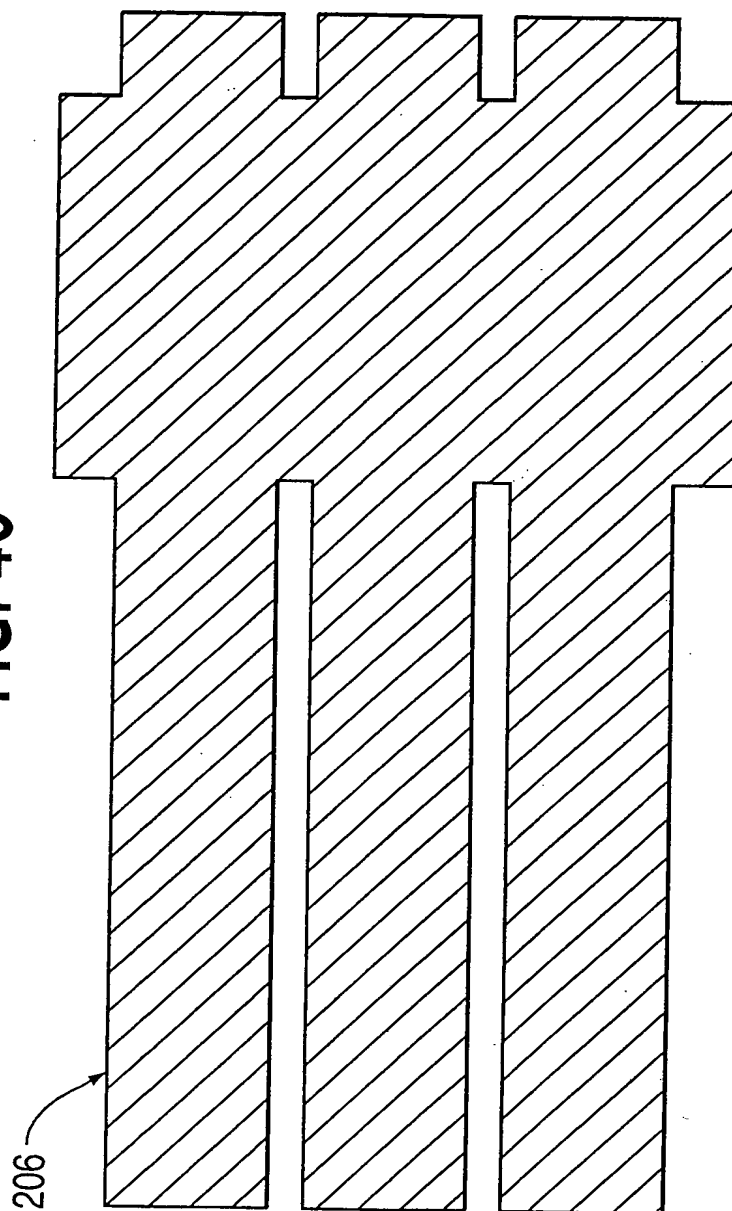


FIG. 41

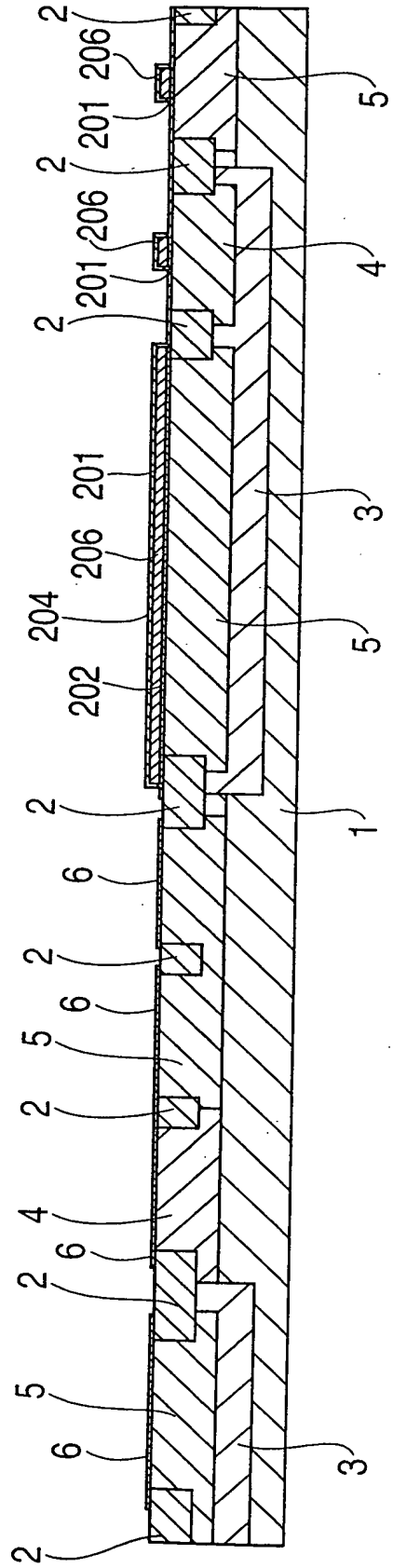


FIG. 42

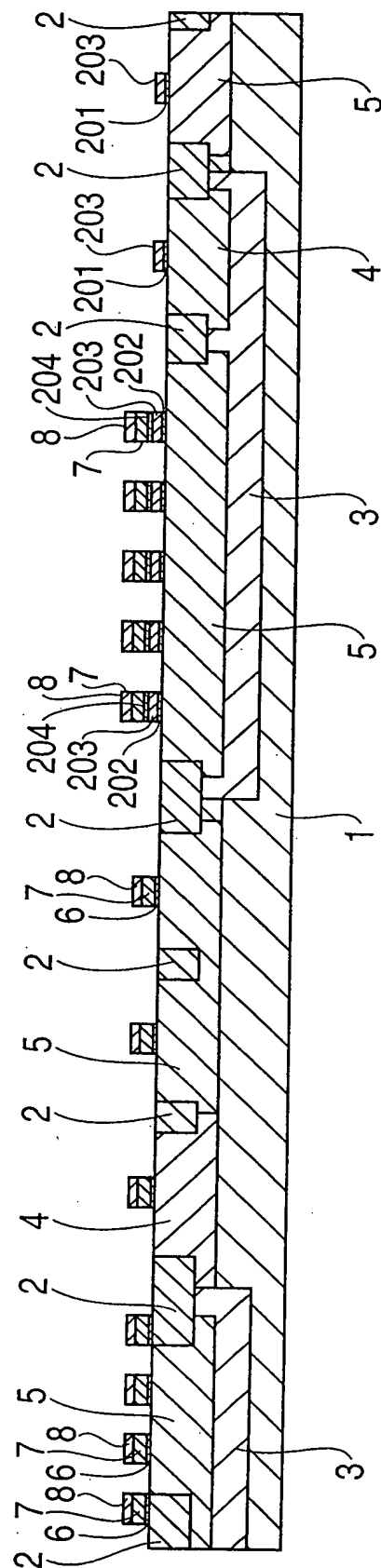


FIG. 43

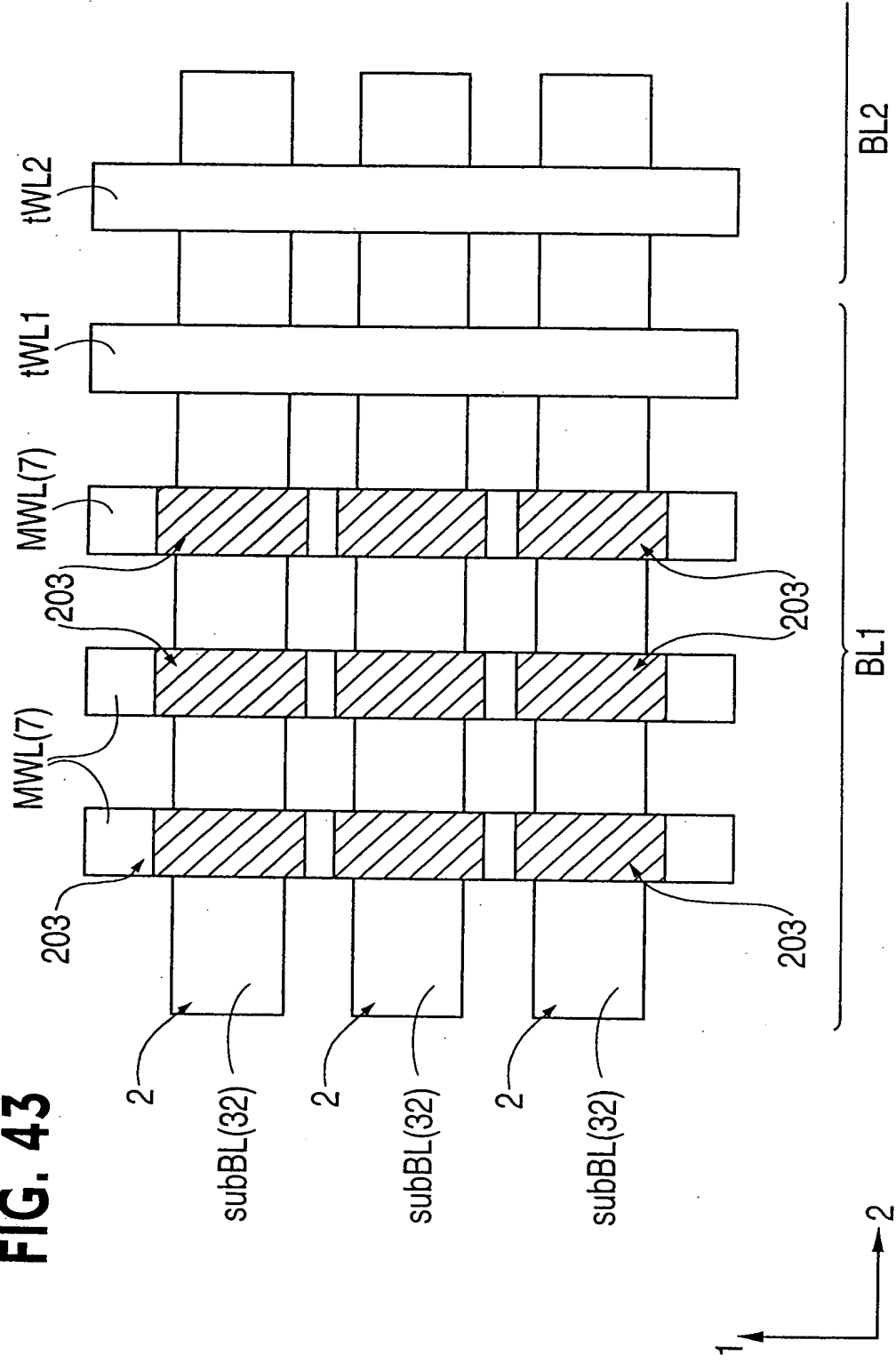
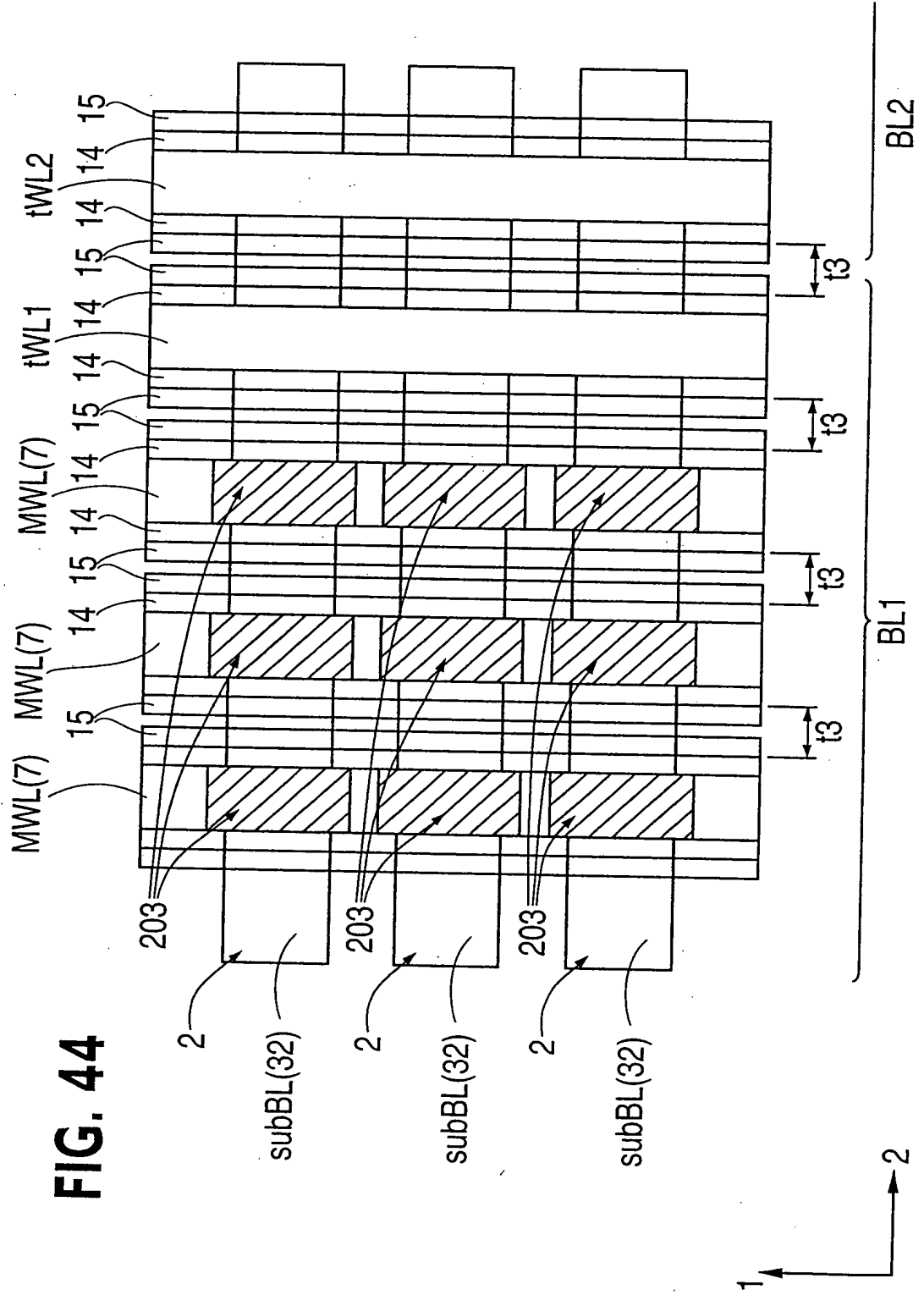


FIG. 44



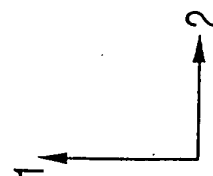
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FIG. 46

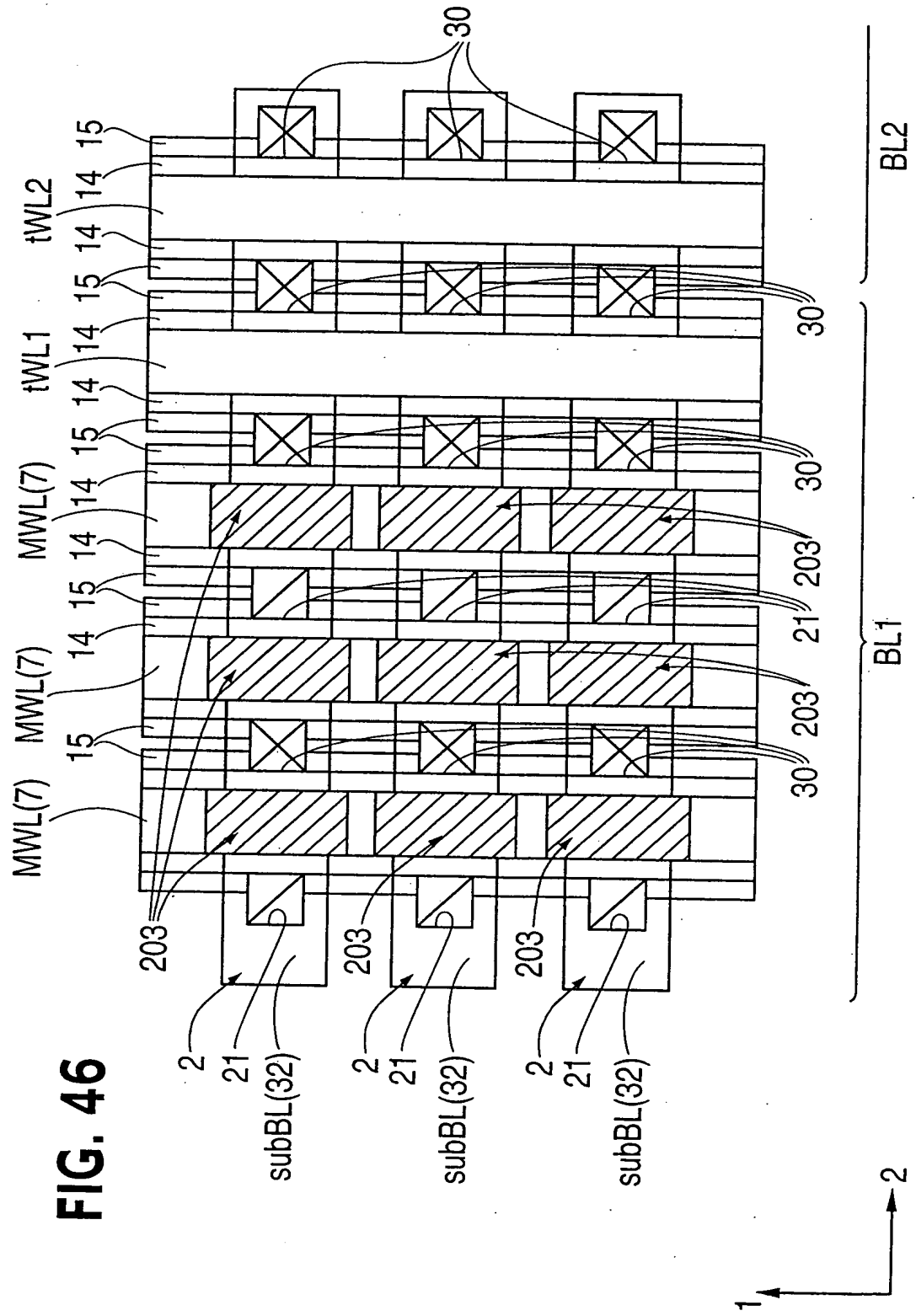


FIG. 47

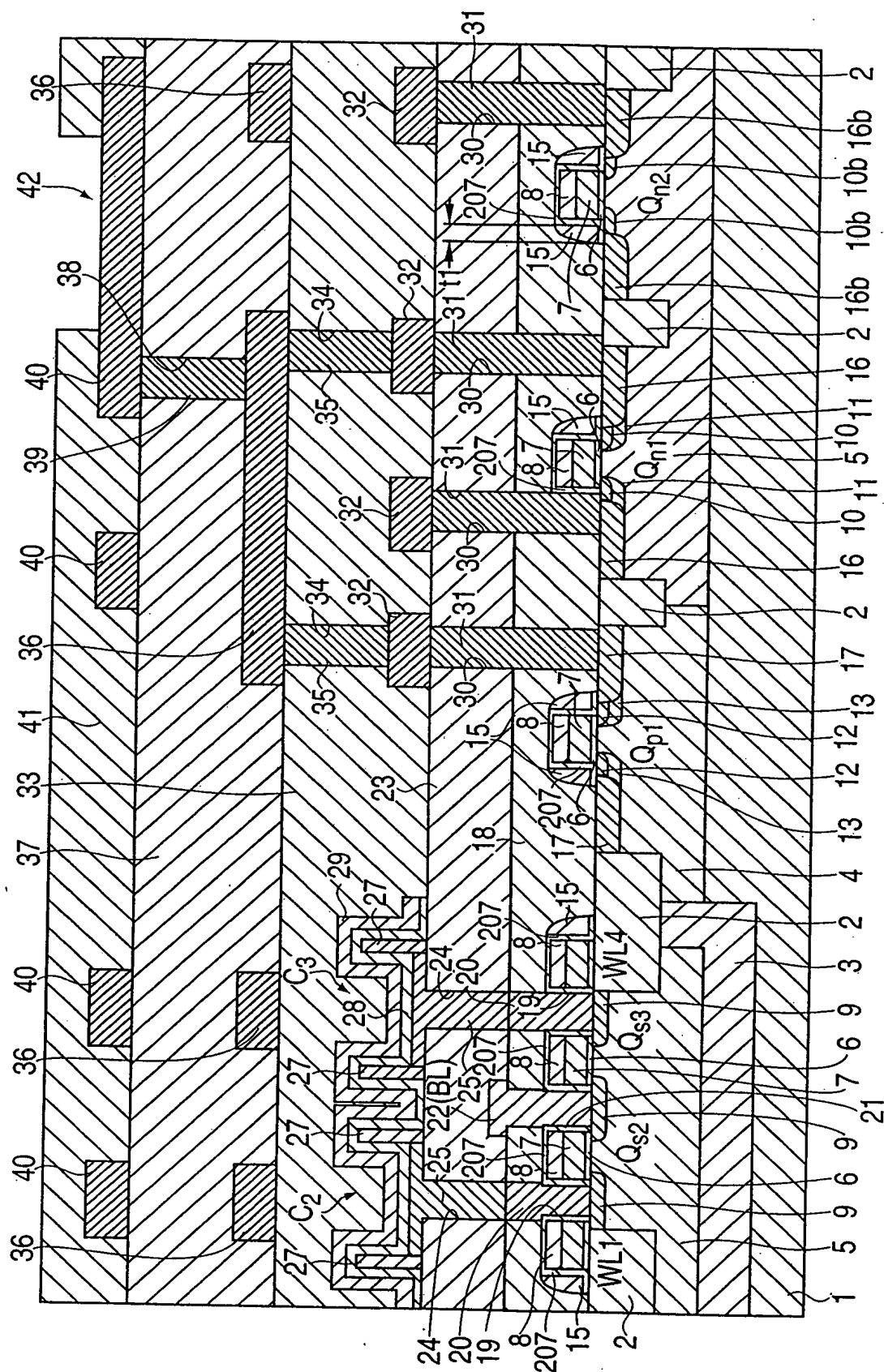
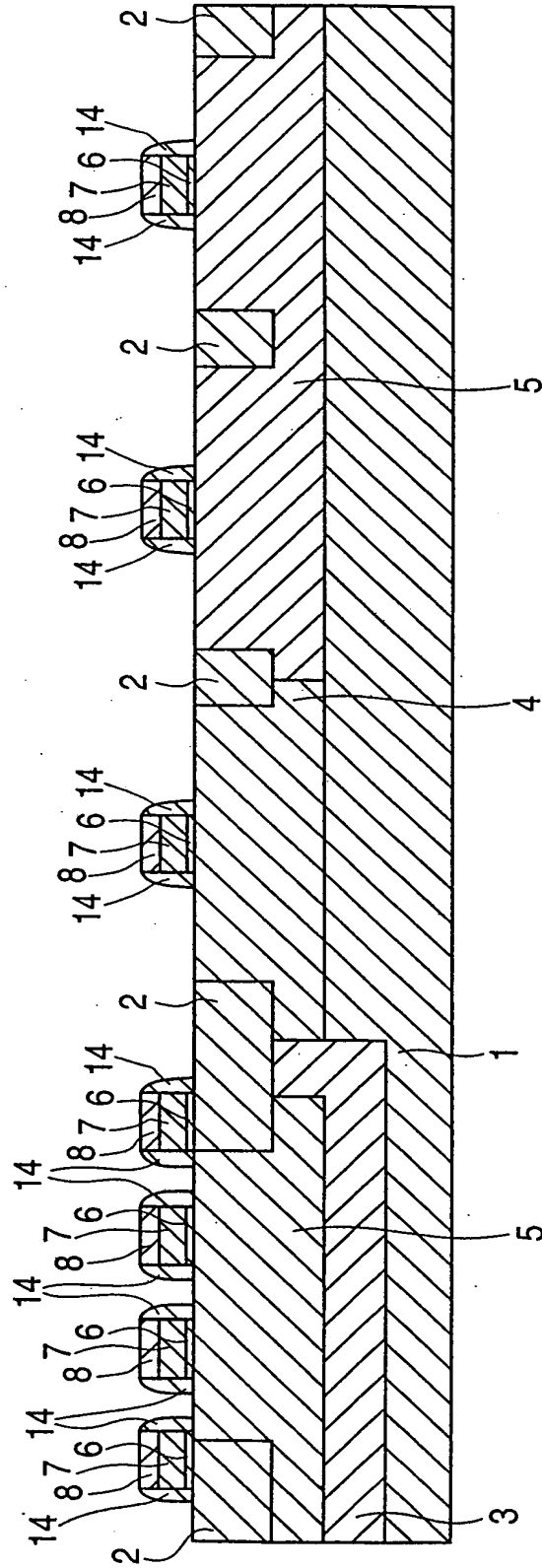


FIG. 48



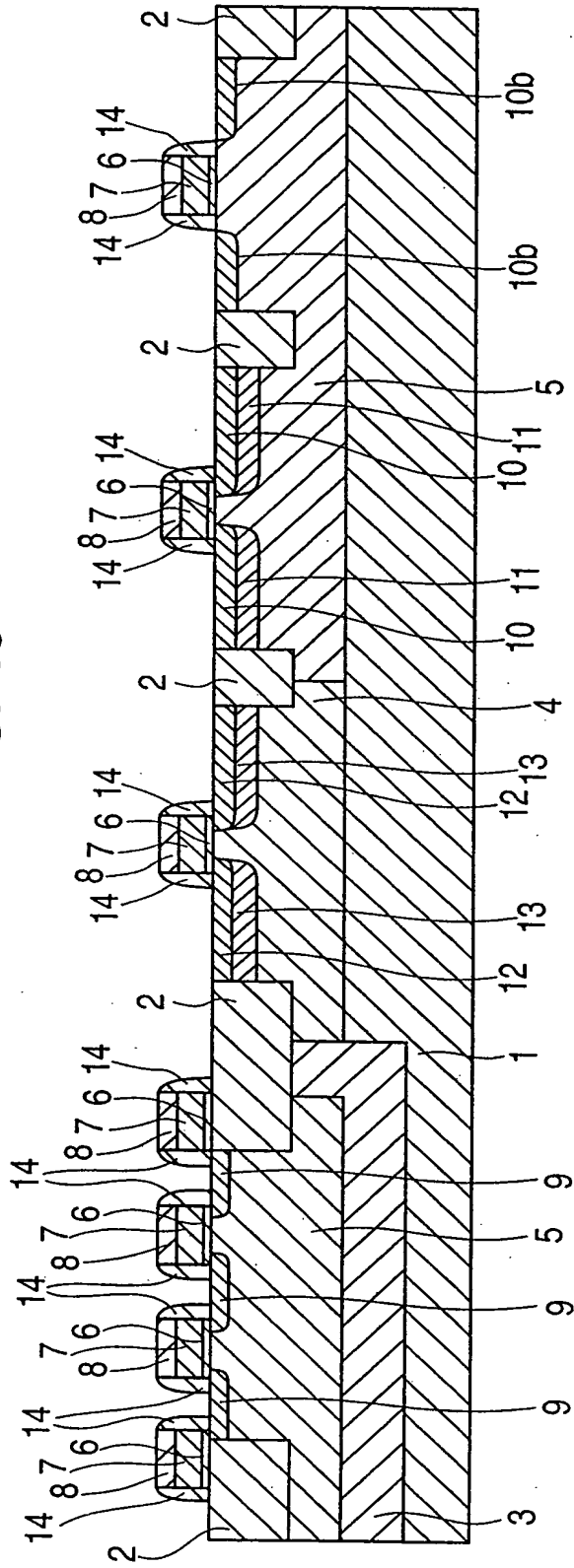


FIG. 50(a)

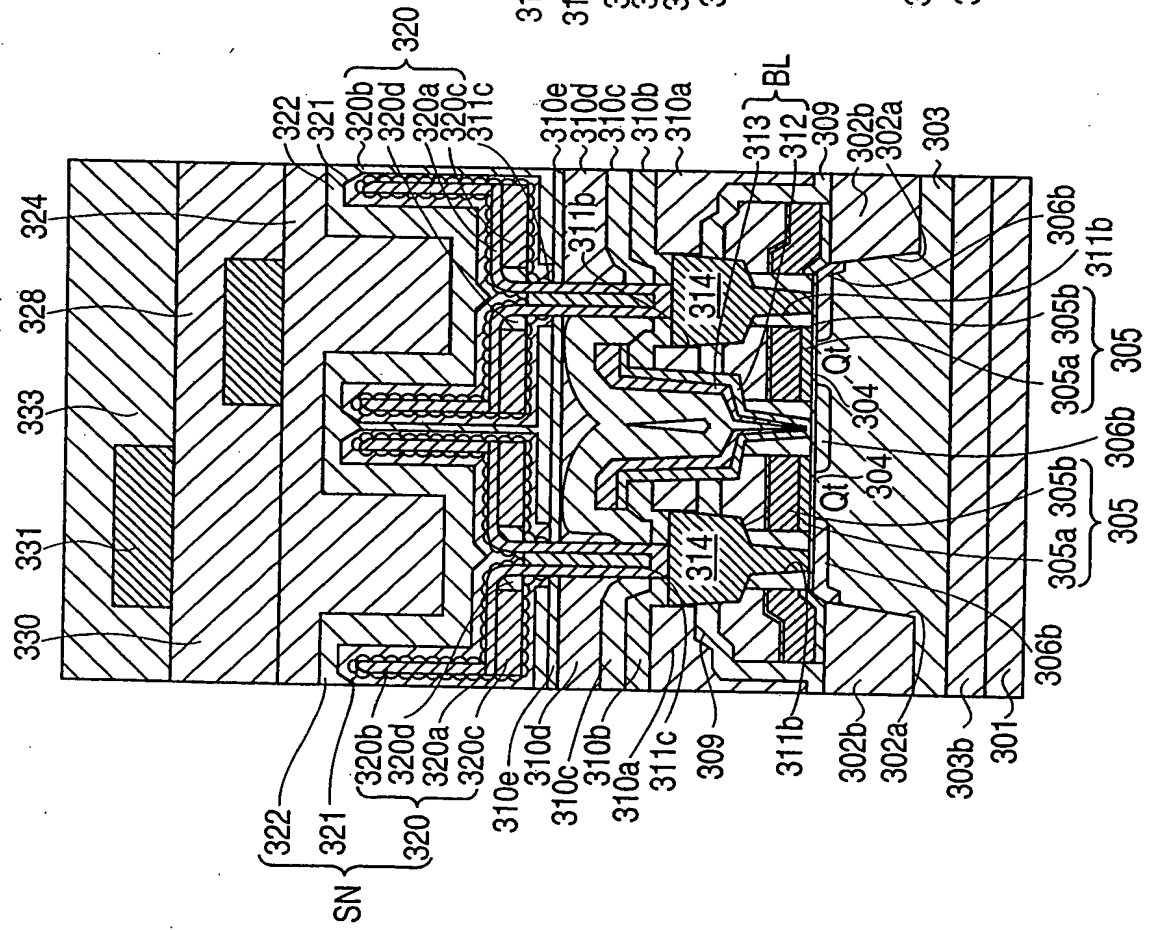


FIG. 50(b)

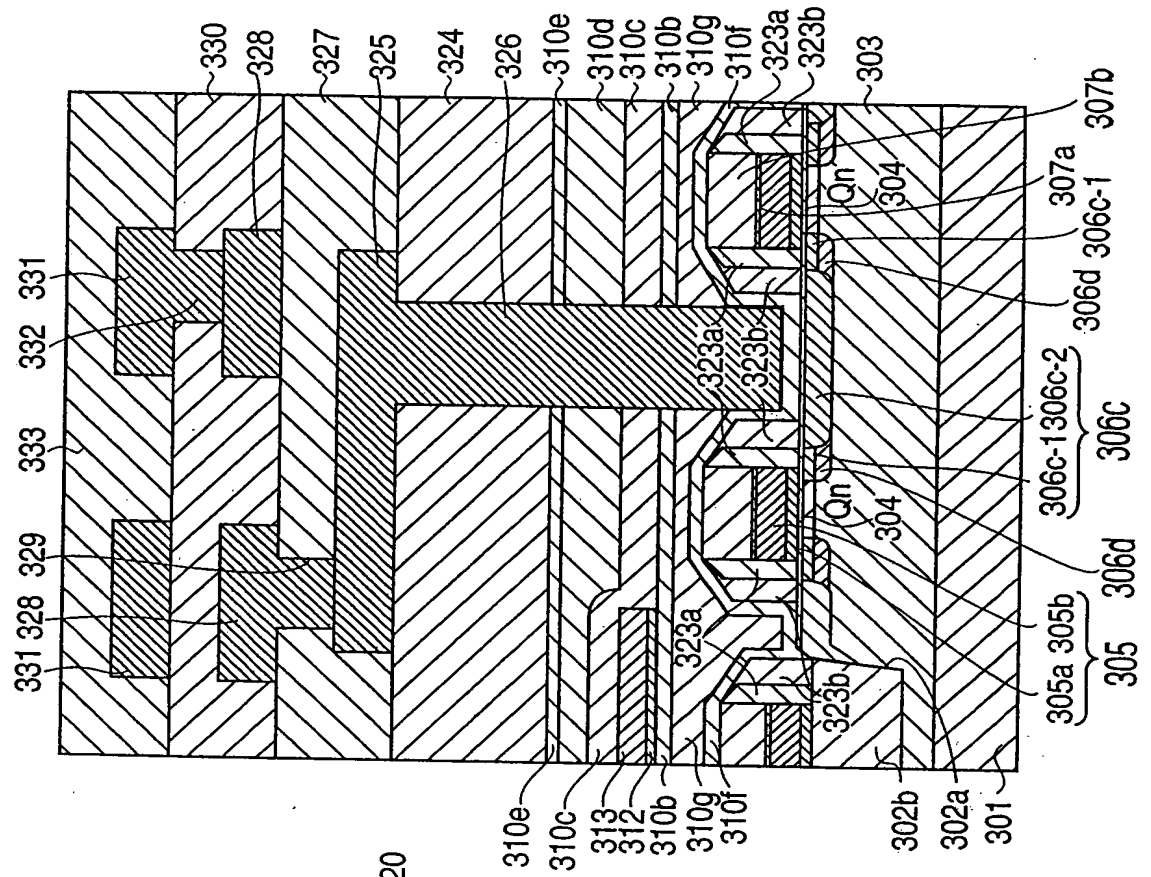


FIG. 51

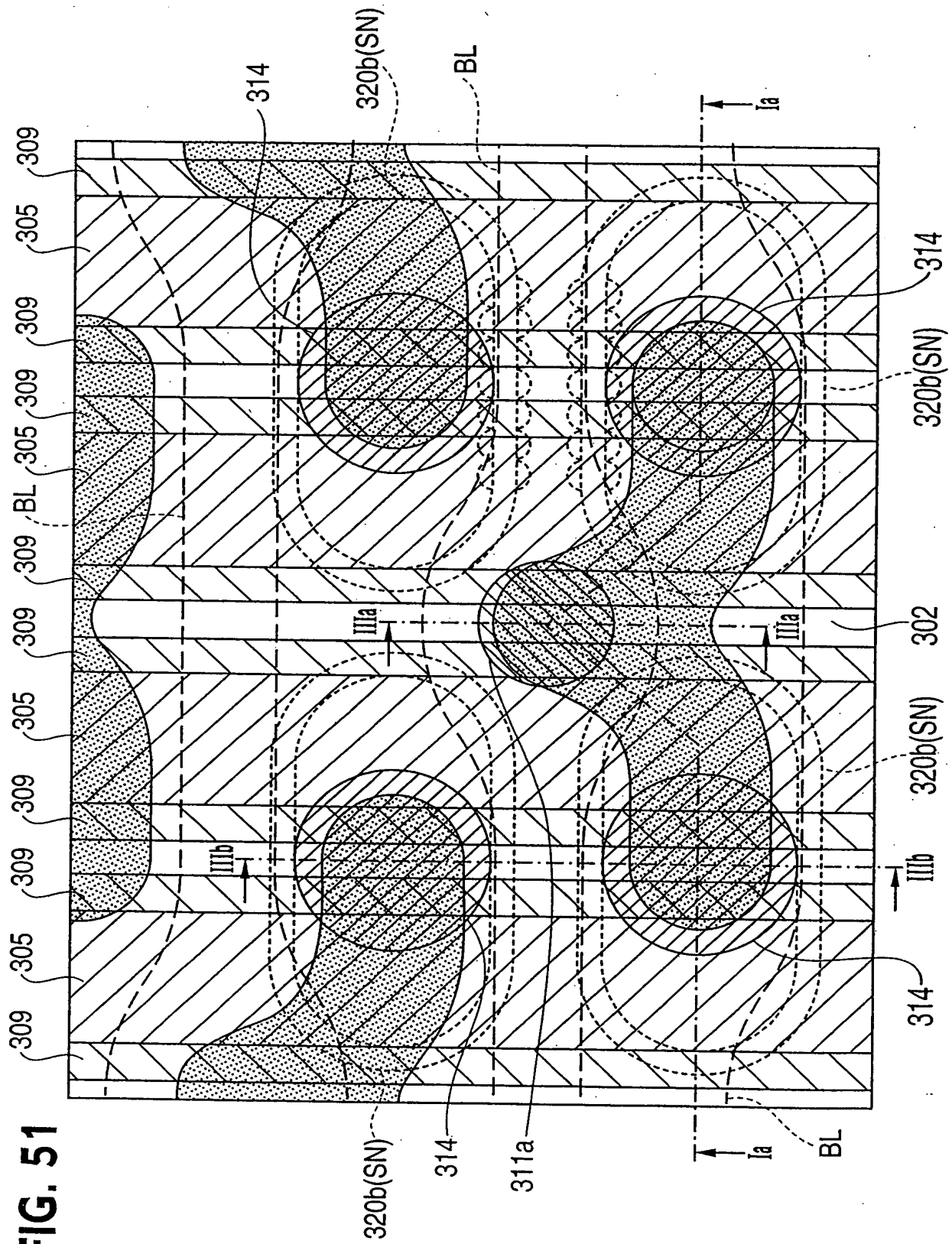


FIG. 52(a)

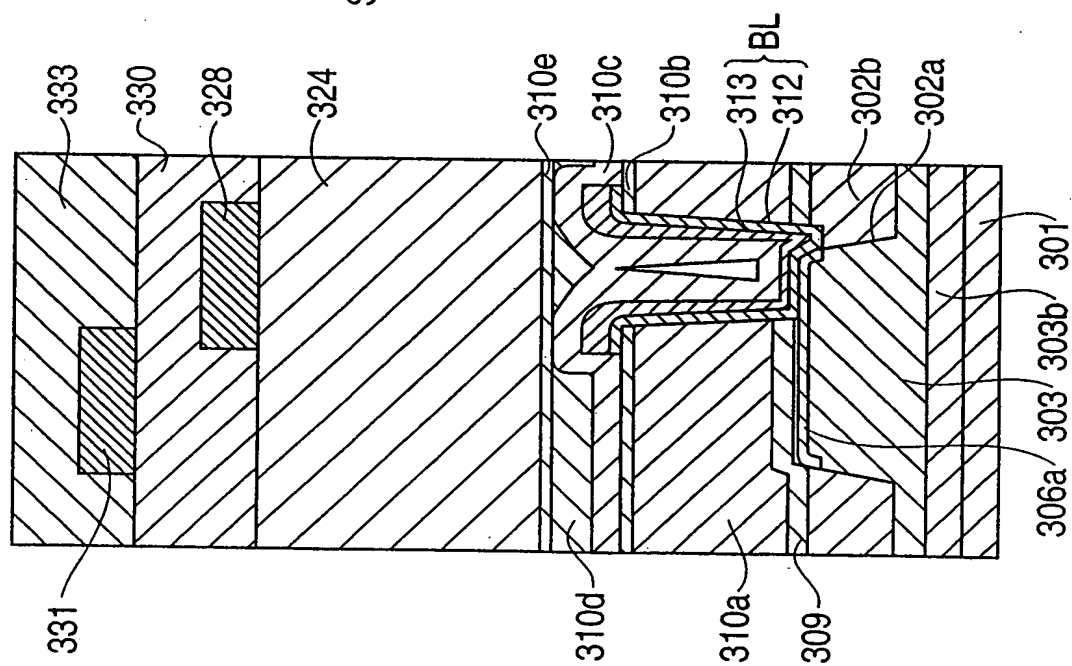


FIG. 52(a)

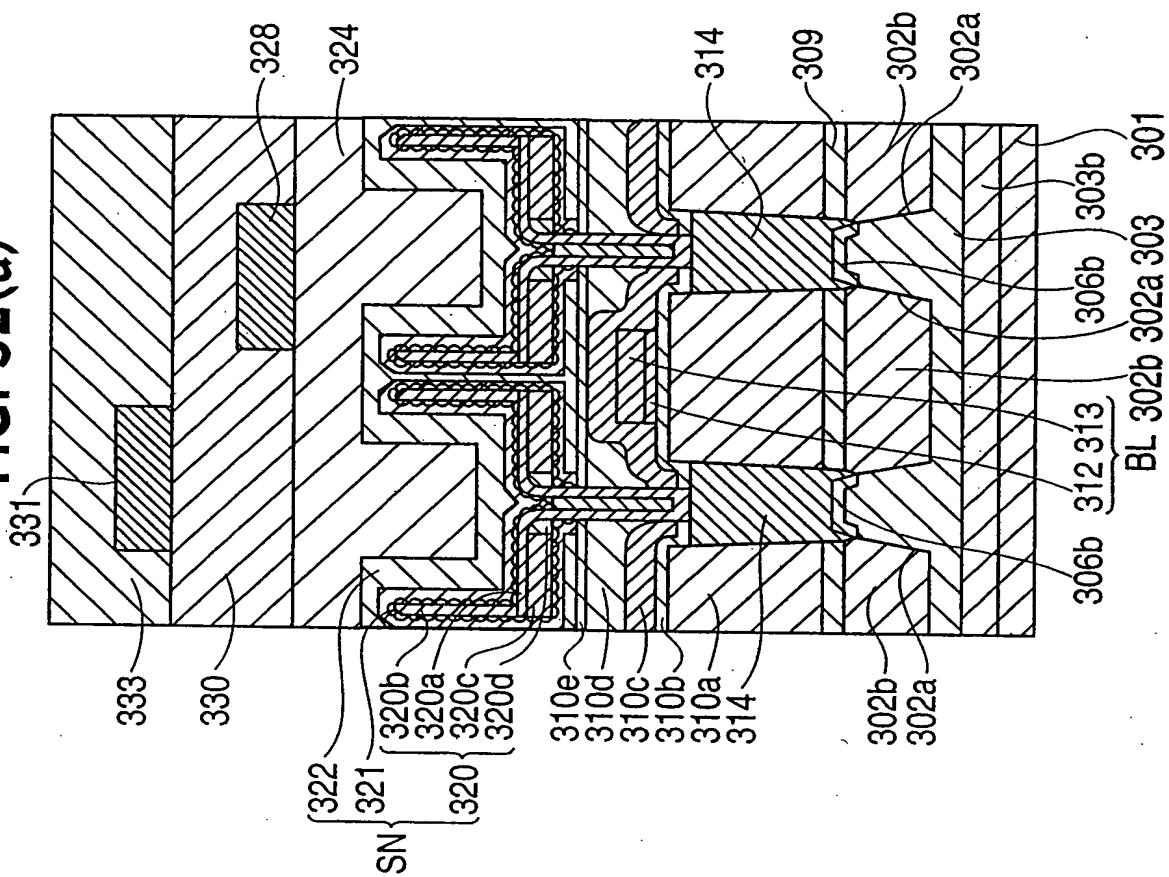


FIG. 53(a)

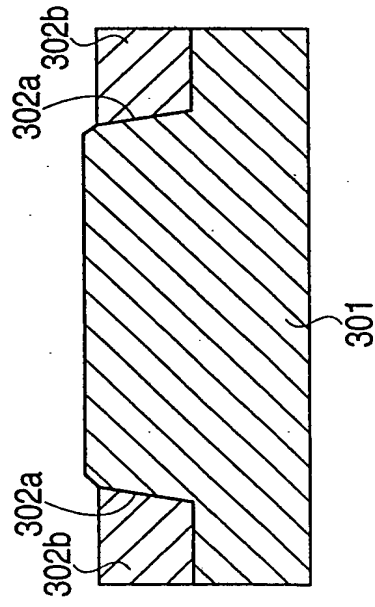


FIG. 53(b)

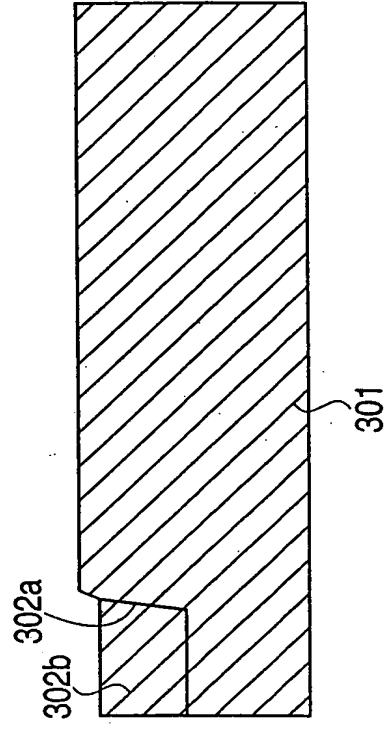


FIG. 54(a)

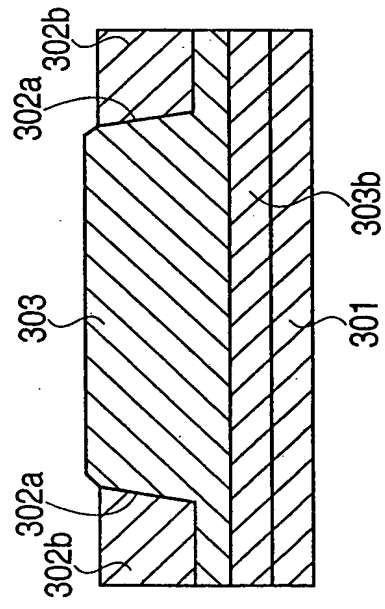


FIG. 54(b)

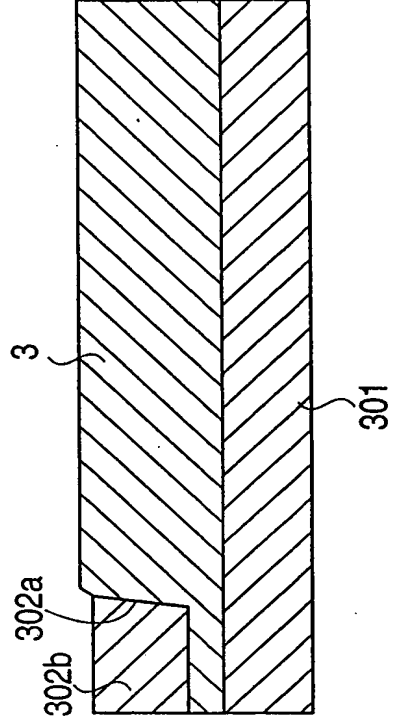


FIG. 55(a)

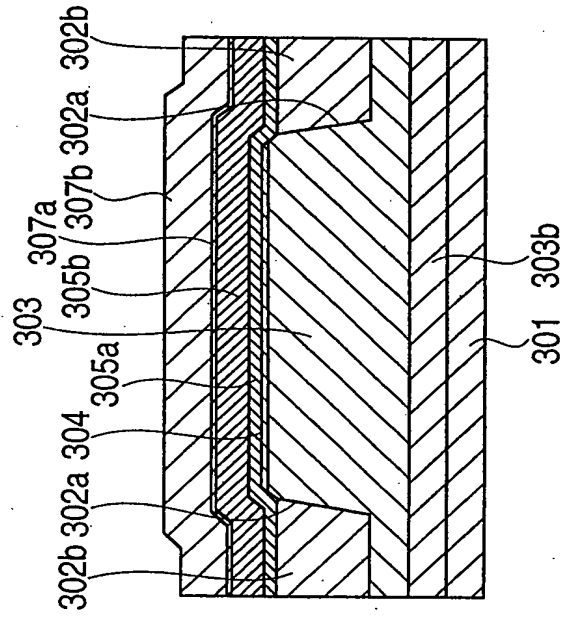


FIG. 55(b)

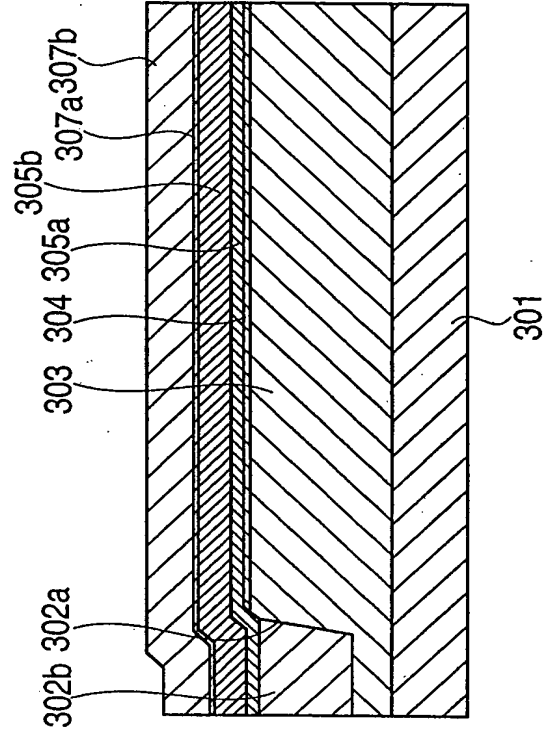


FIG. 57(b)

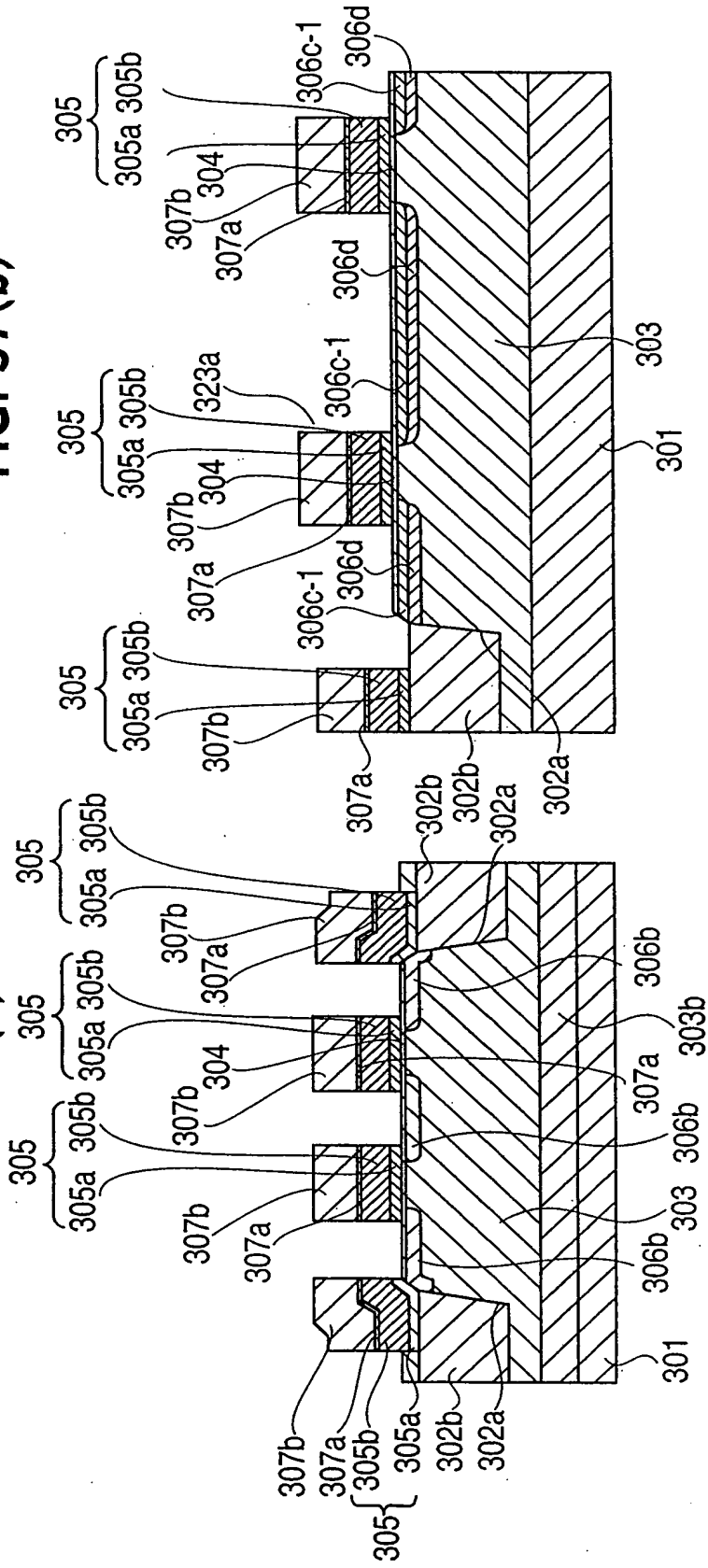


FIG. 58(b)

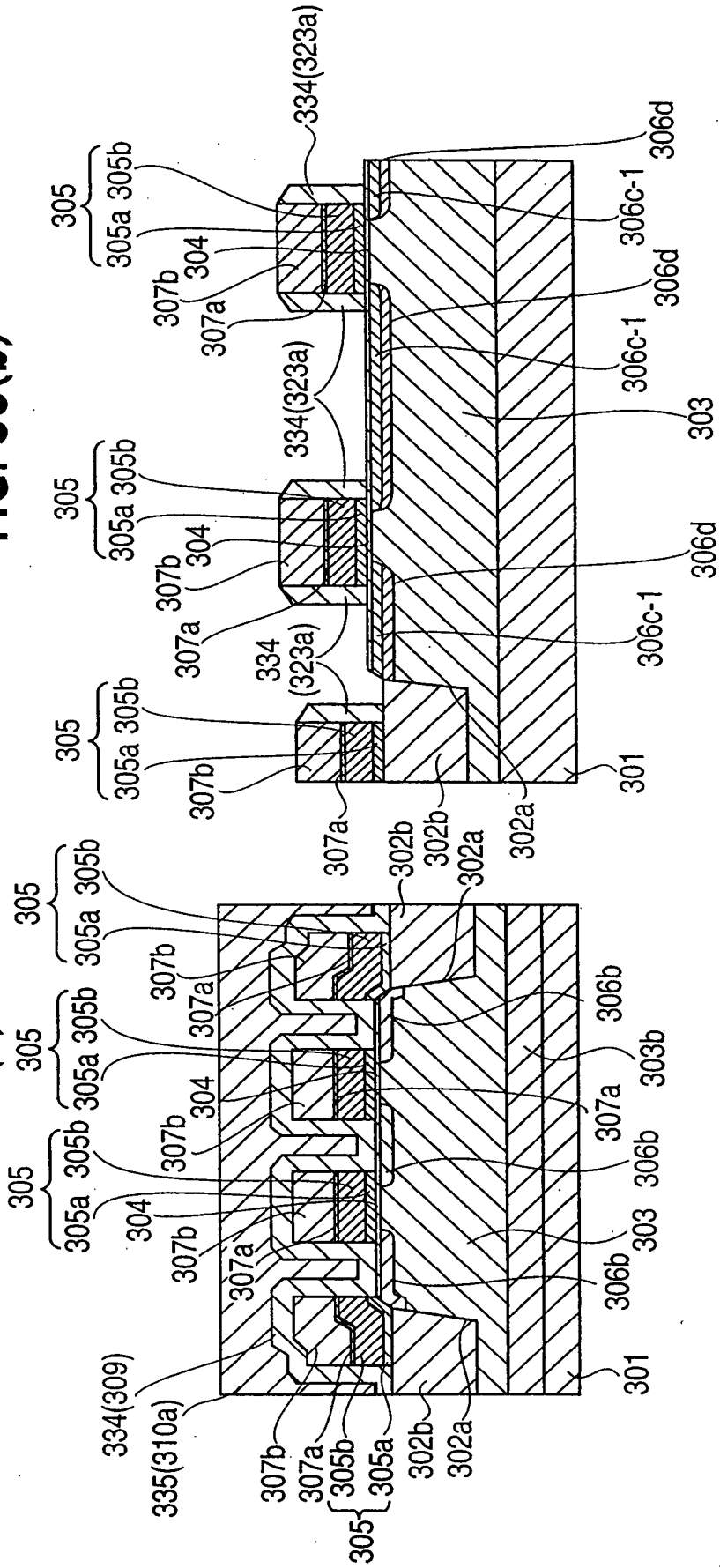


FIG. 59(b)

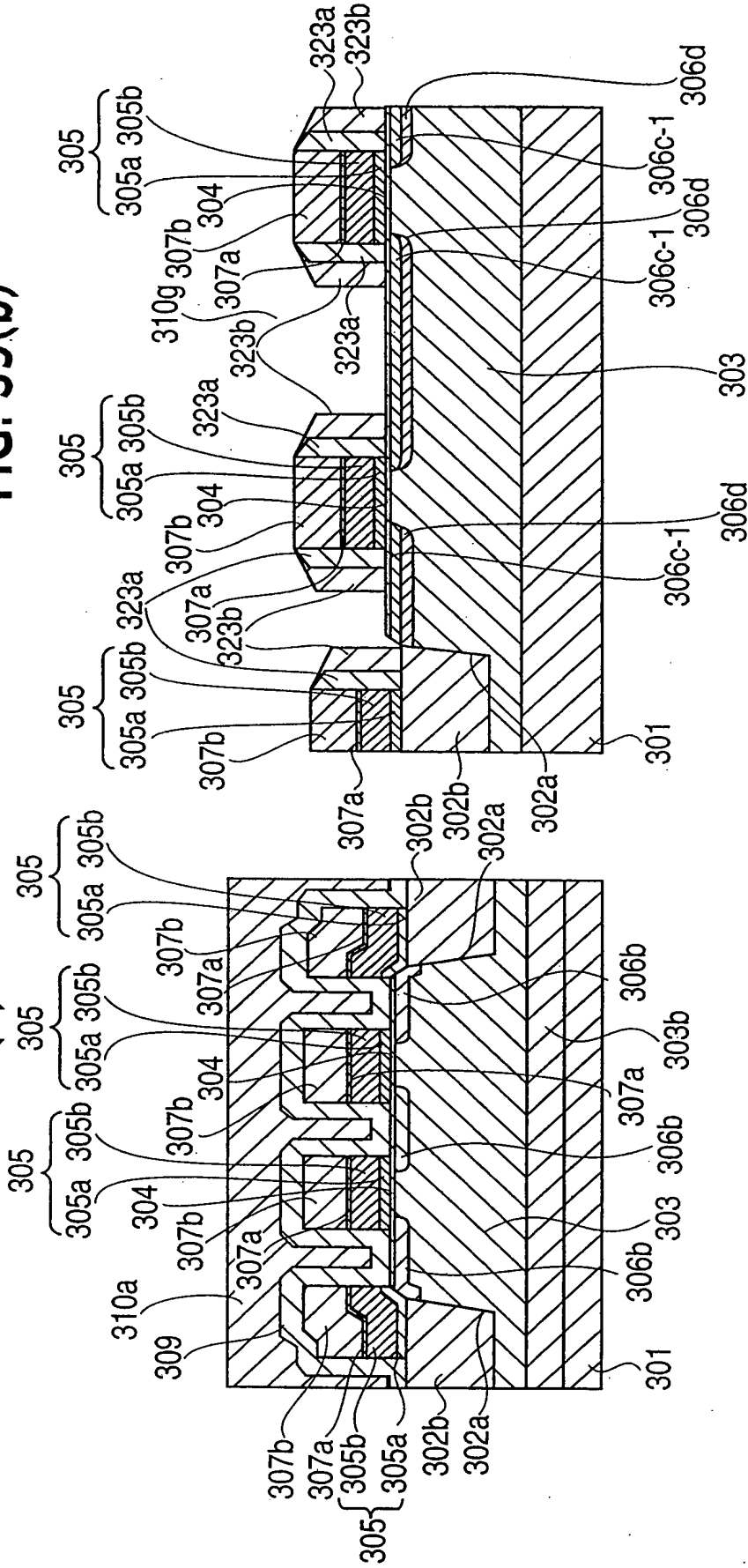


FIG. 60(a)

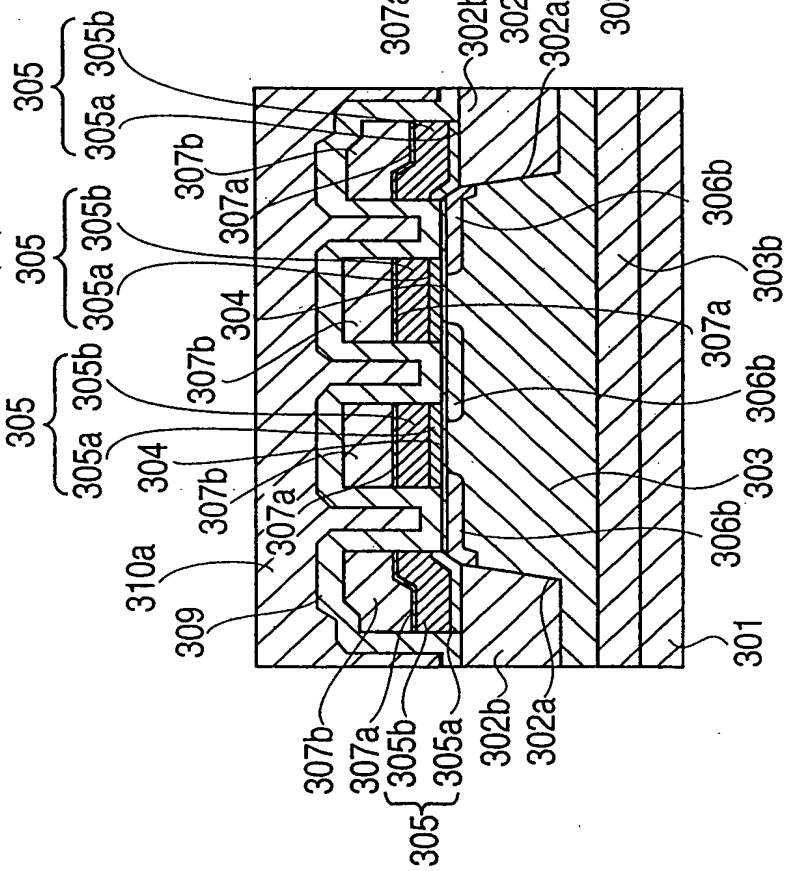


FIG. 60(b)

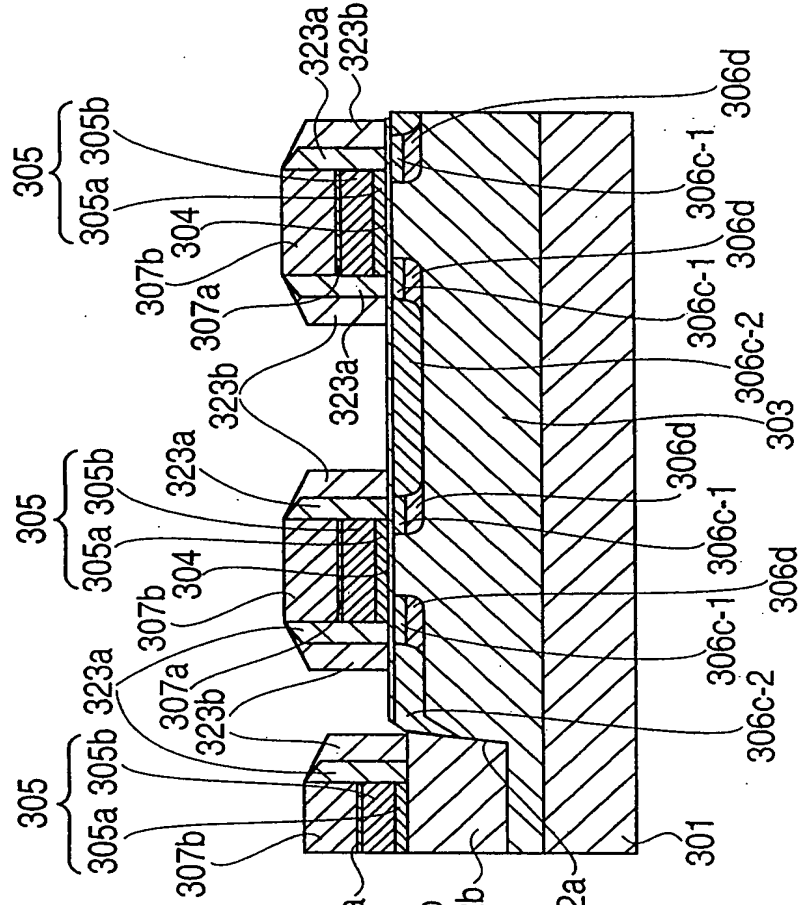


FIG. 61(a)

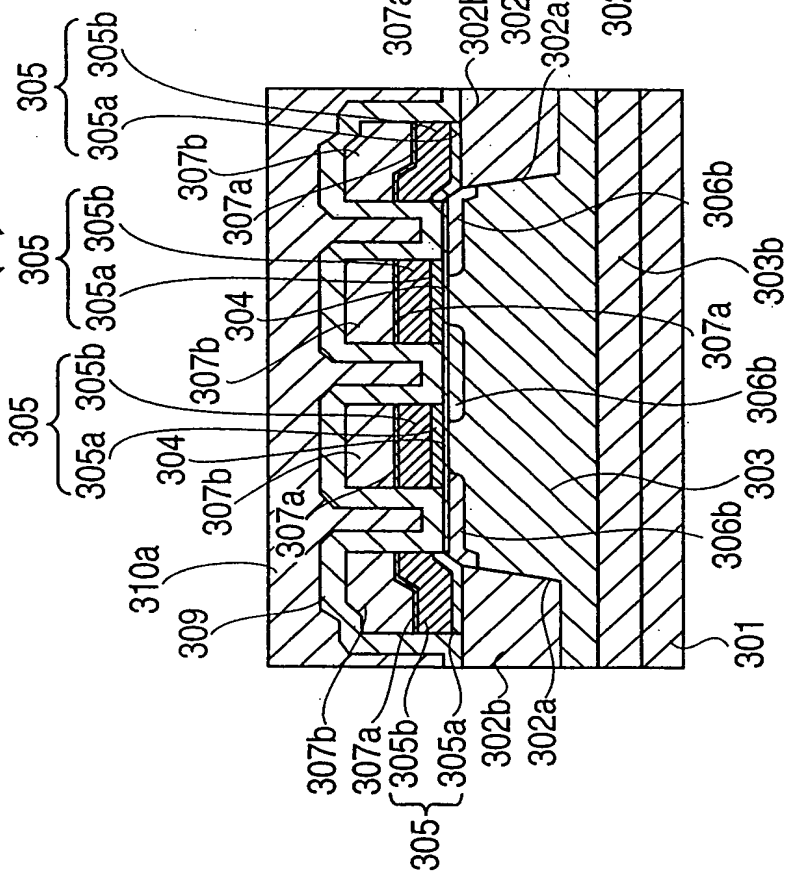


FIG. 61(b)

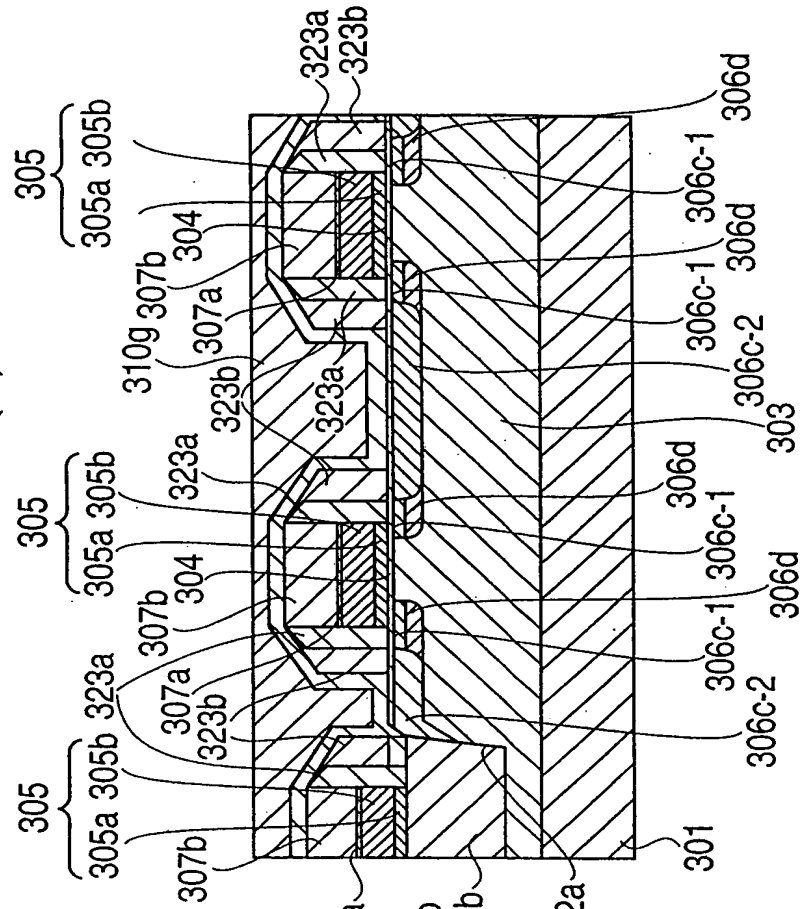


FIG. 62(b)

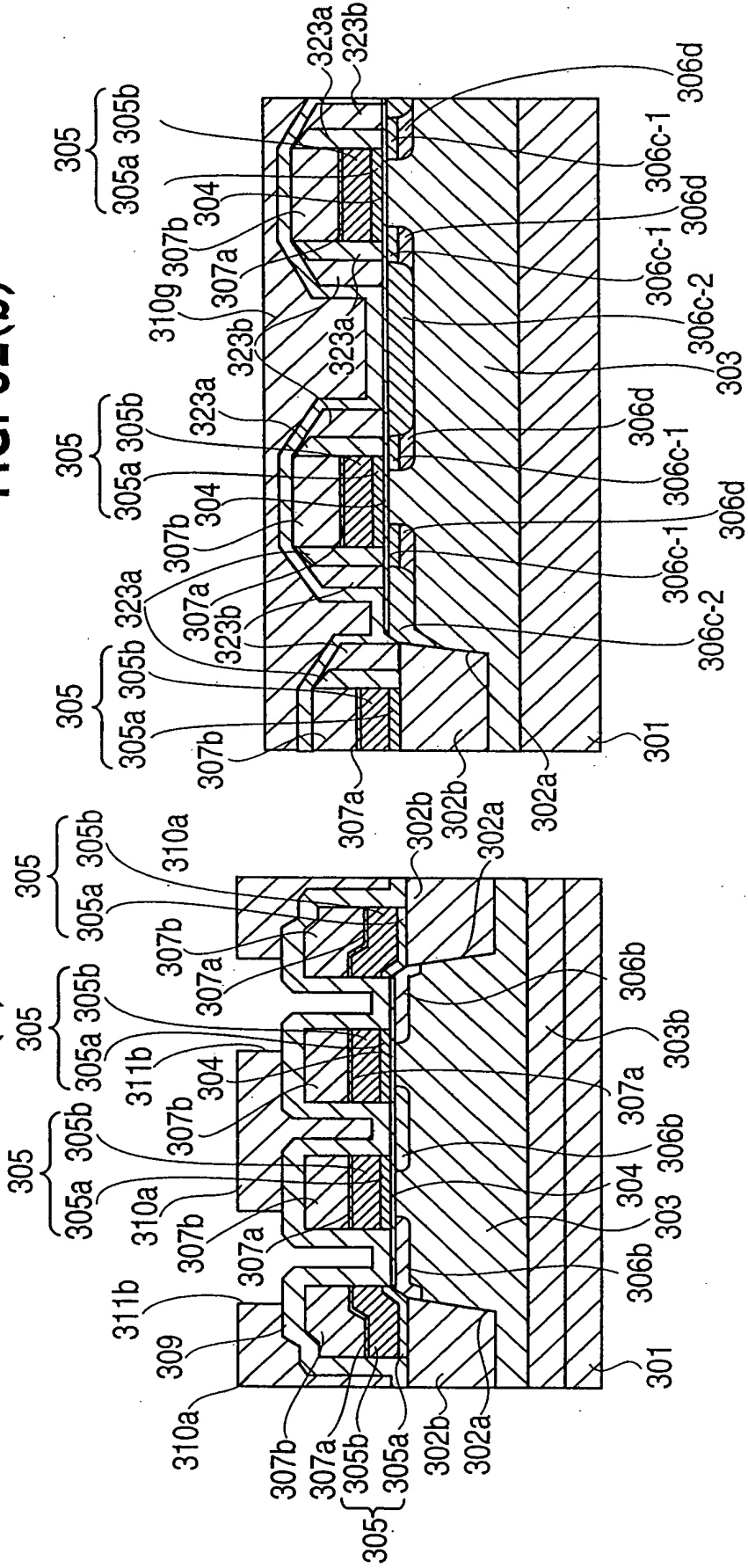


FIG. 63(a)

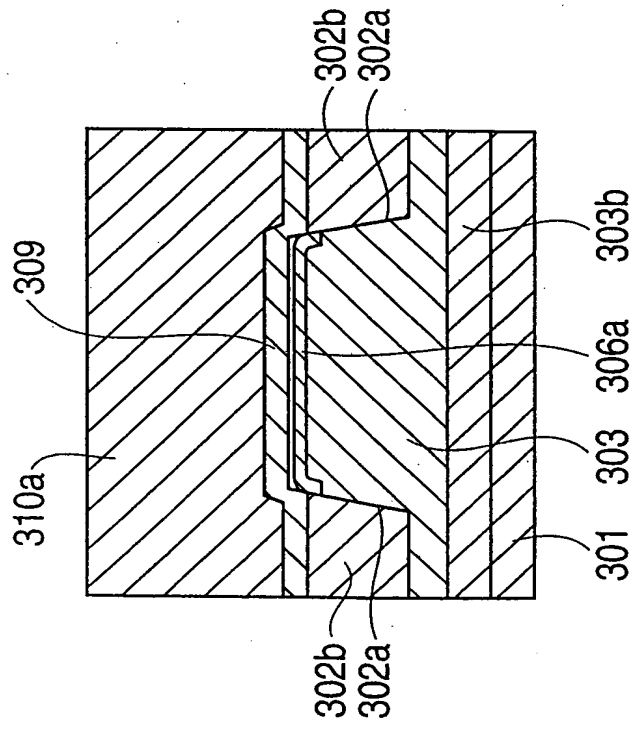


FIG. 63(b)

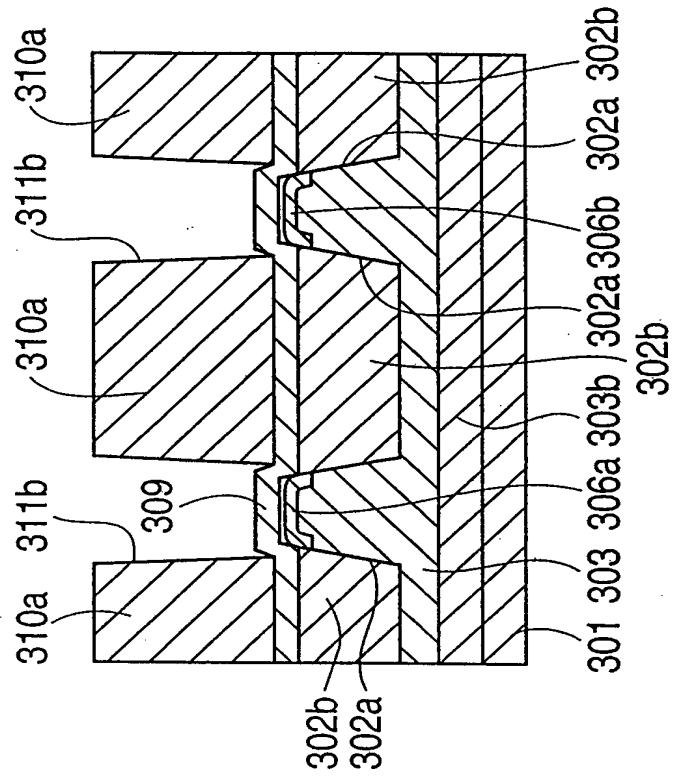


FIG. 64(b)



FIG. 65(a)

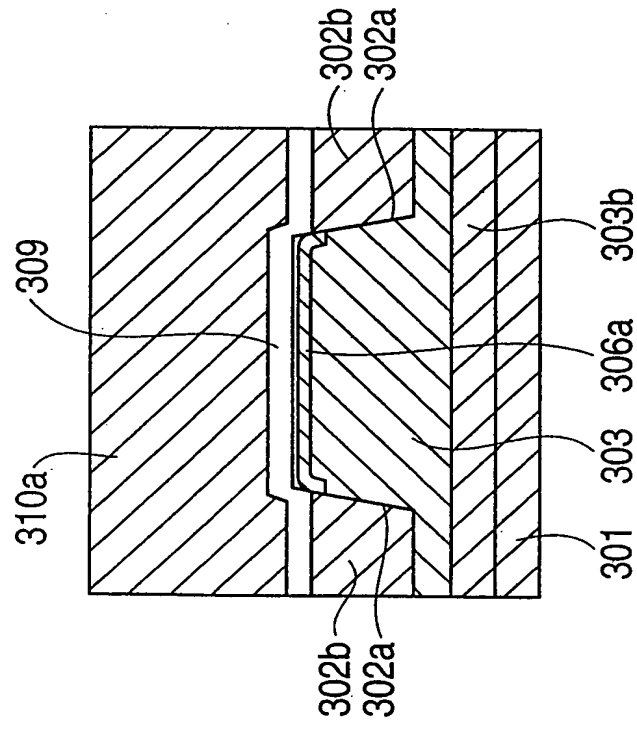


FIG. 65(b)

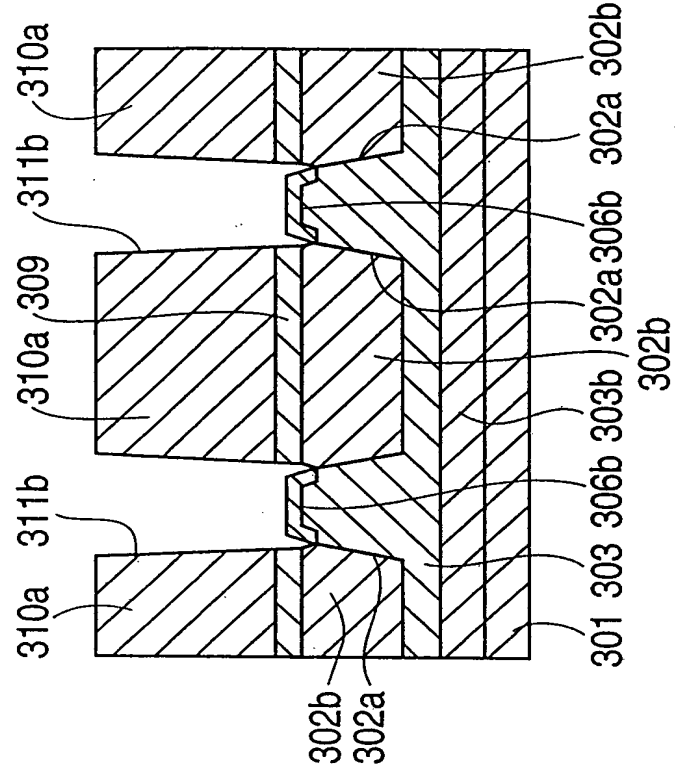


FIG. 66(b)



FIG. 67(a)

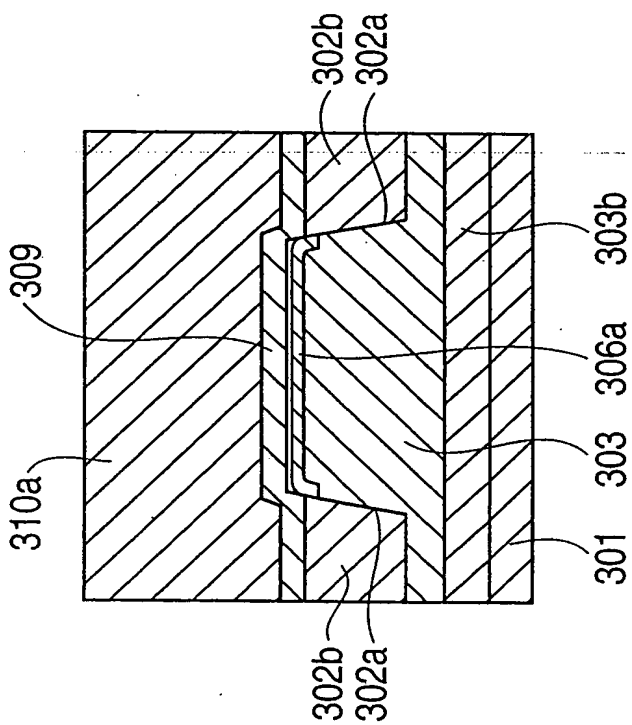


FIG. 67(b)

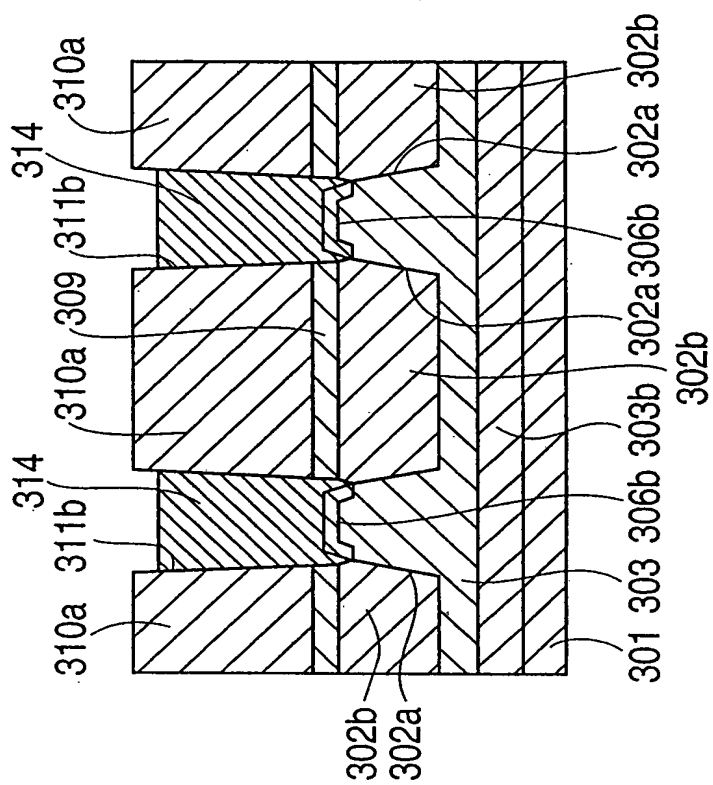


FIG. 68(b)



FIG. 69(a)

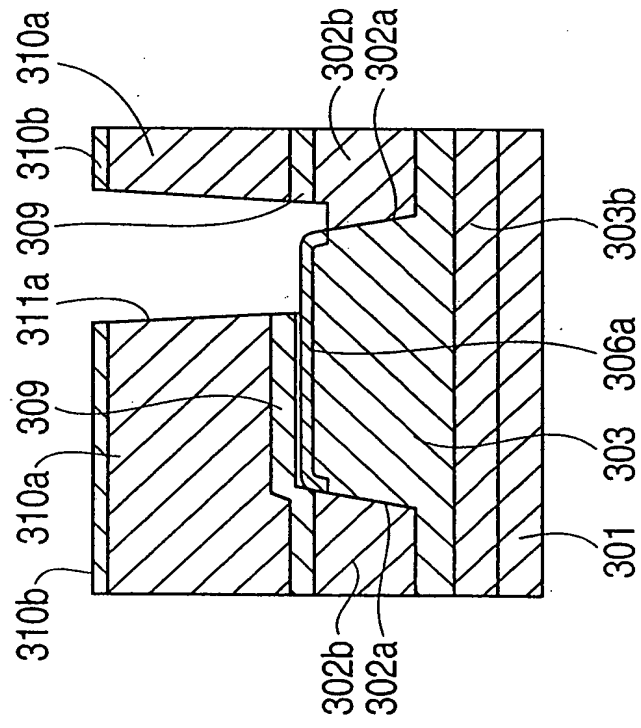


FIG. 69(b)

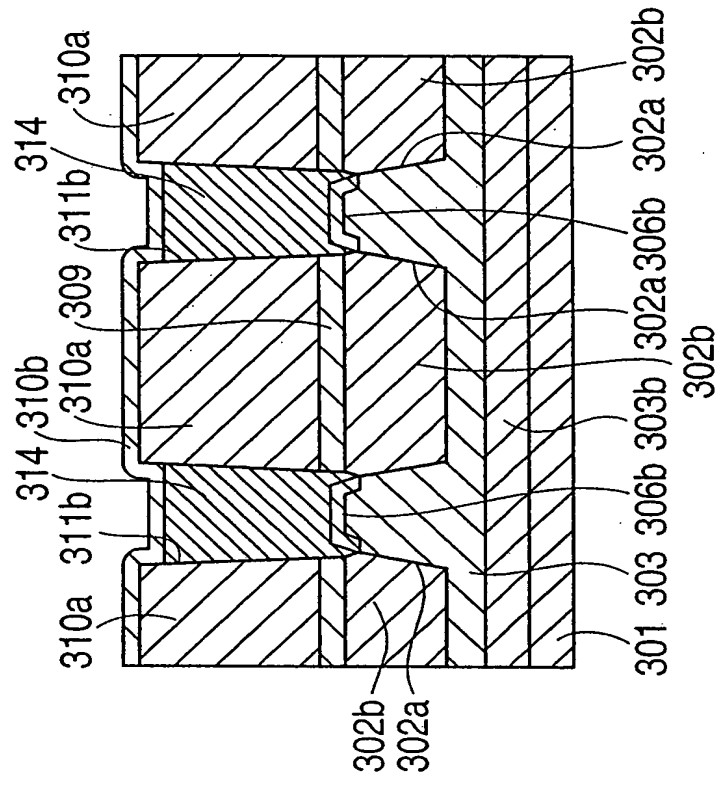


FIG. 70(a)

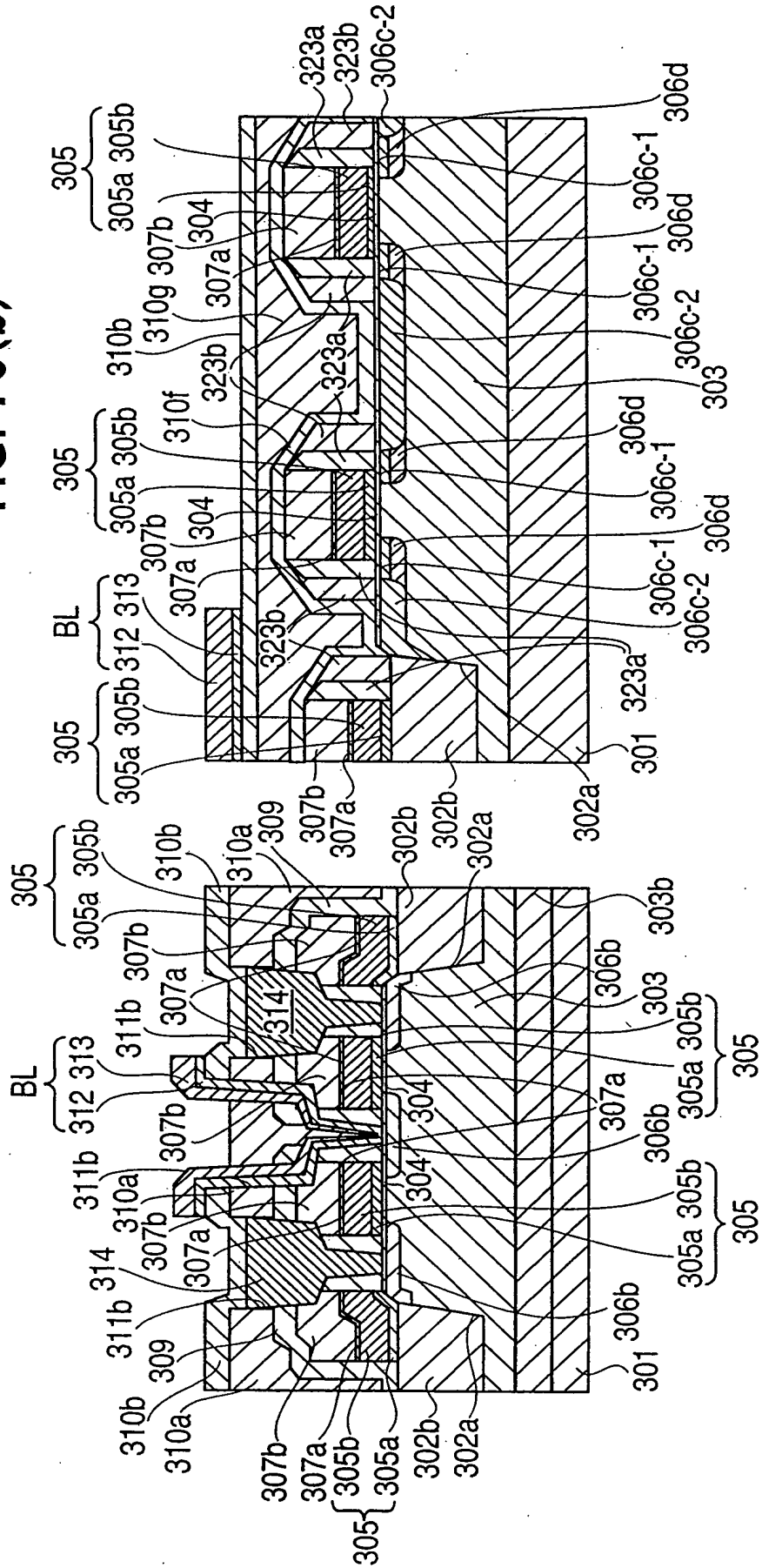


FIG. 70(b)

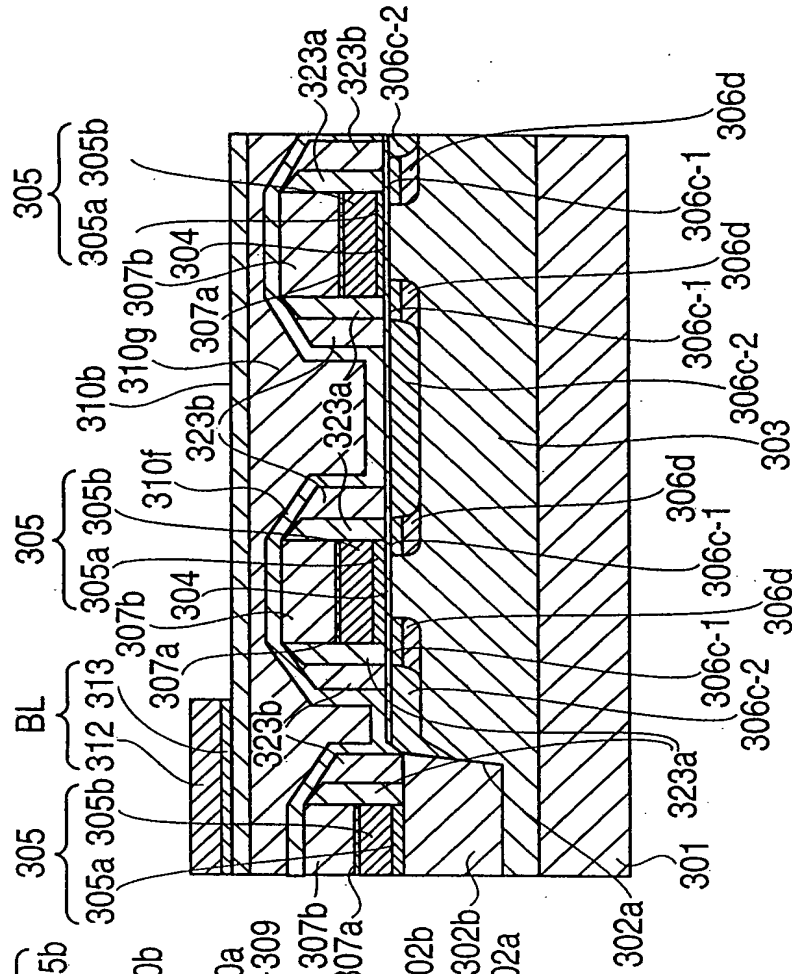


FIG. 71(a)

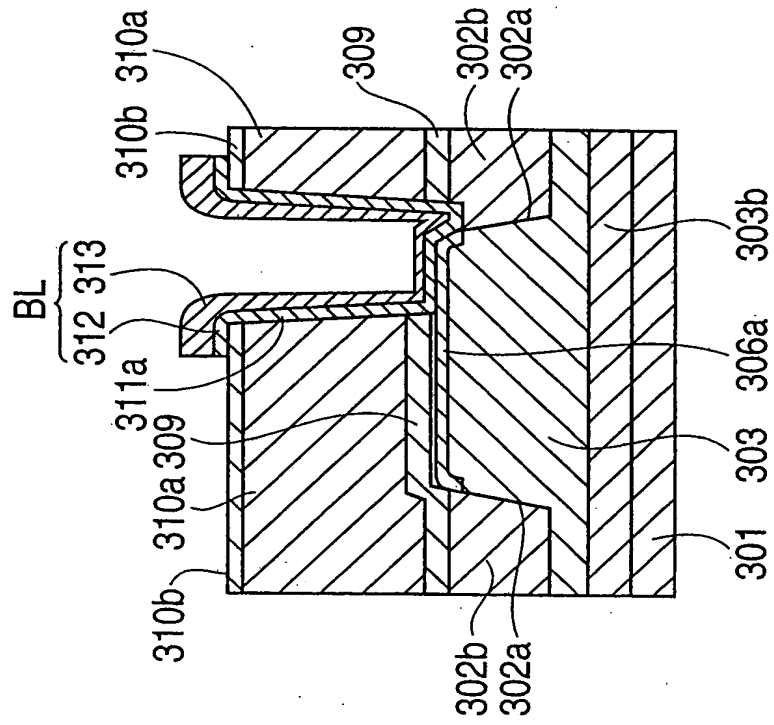


FIG. 71(a)

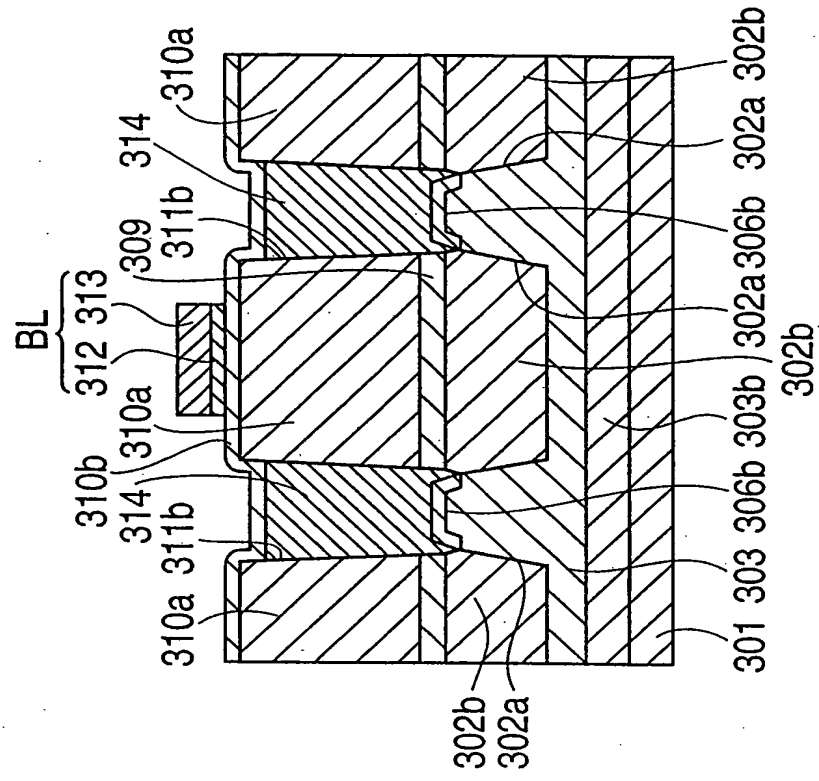


FIG. 72(a)

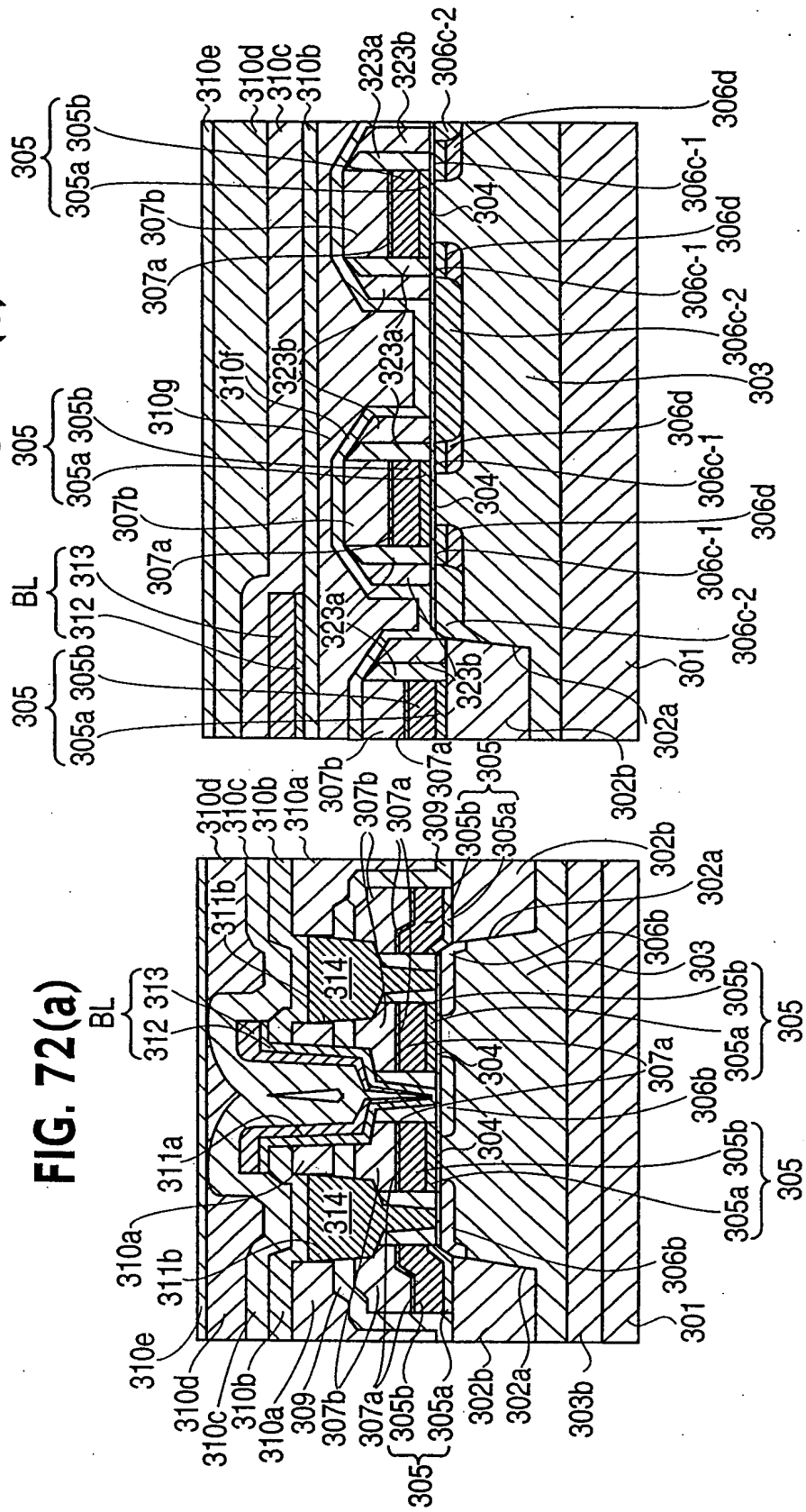


FIG. 72(b)

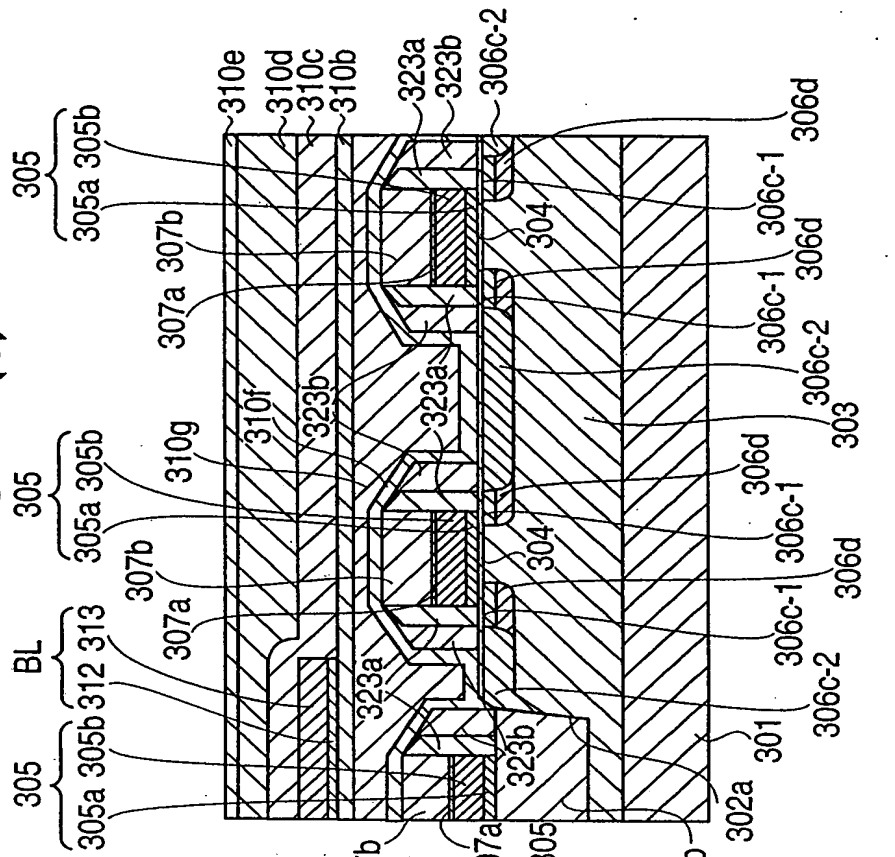


FIG. 73(a)

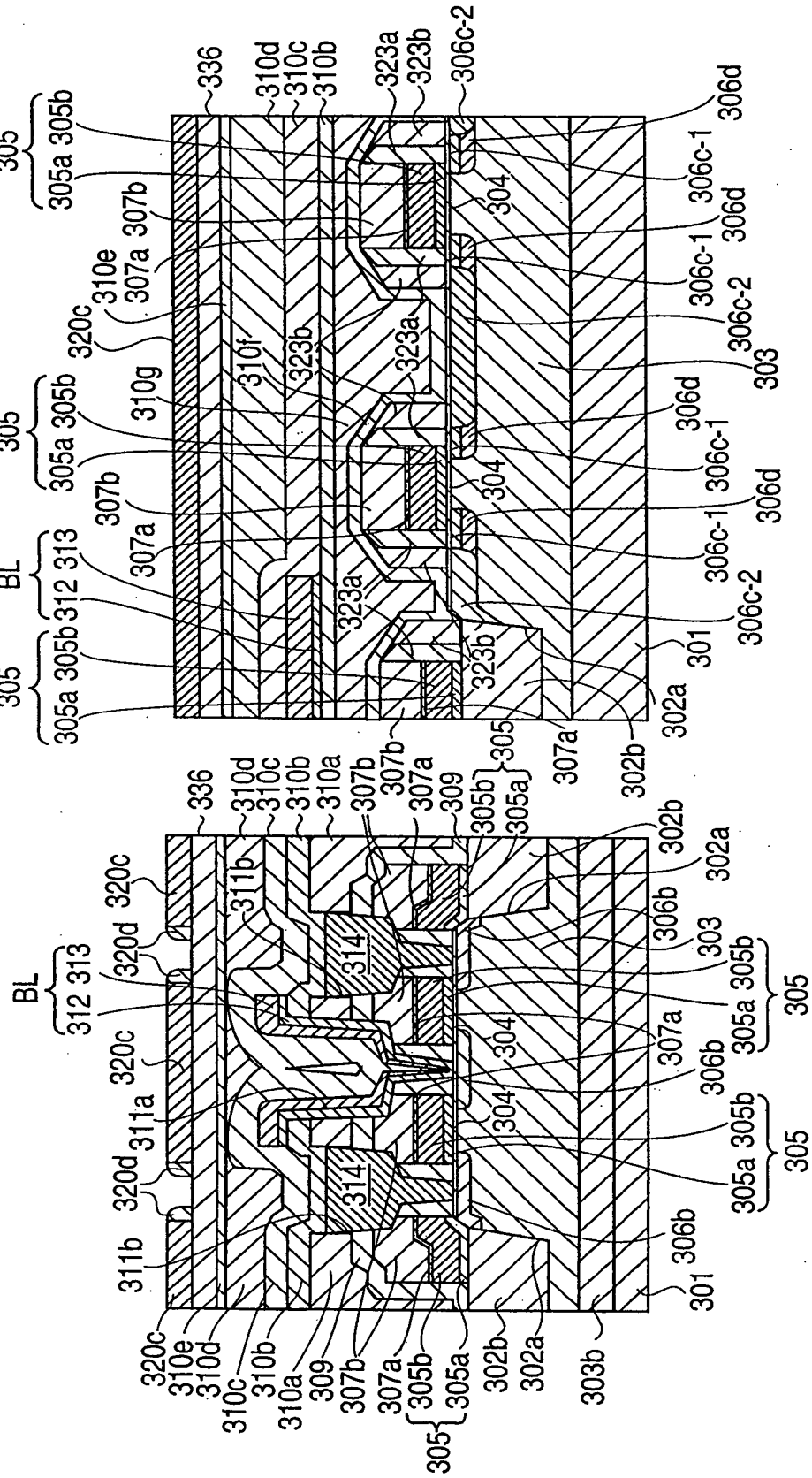


FIG. 73(b)

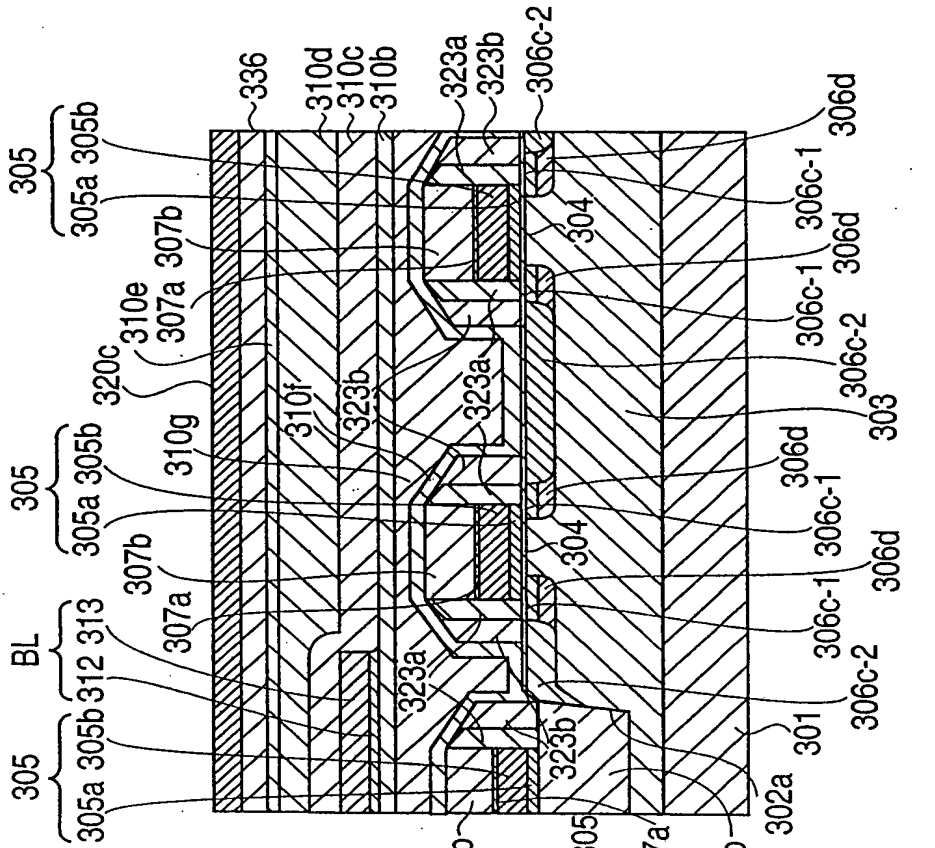


FIG. 74(a)

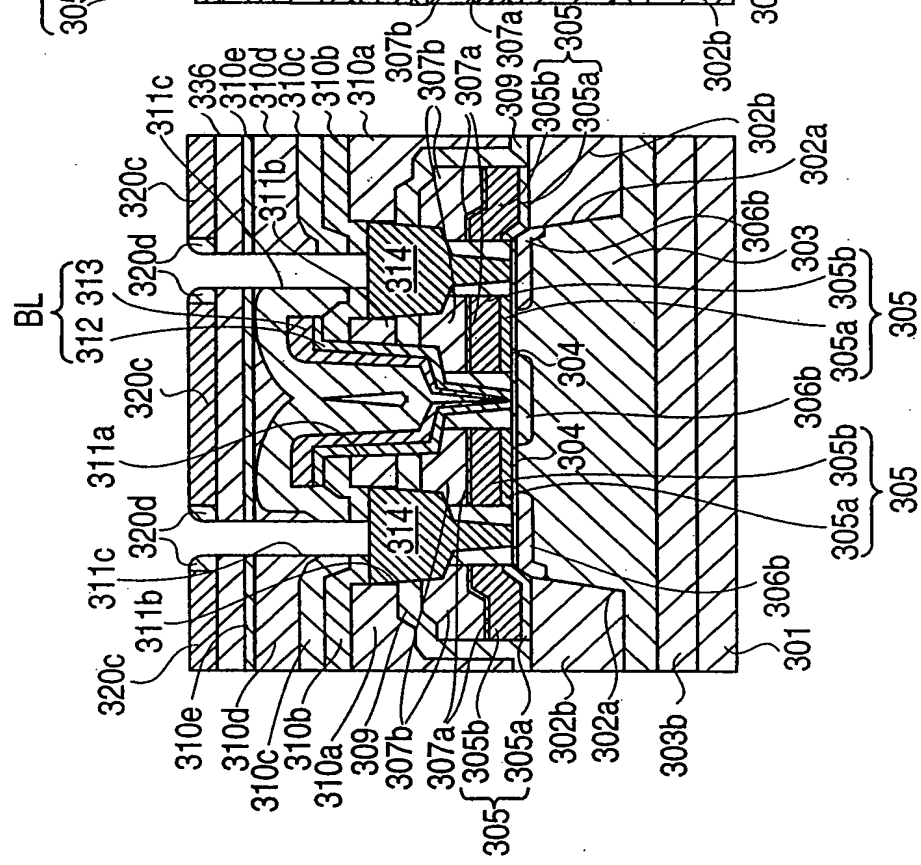


FIG. 75(a)

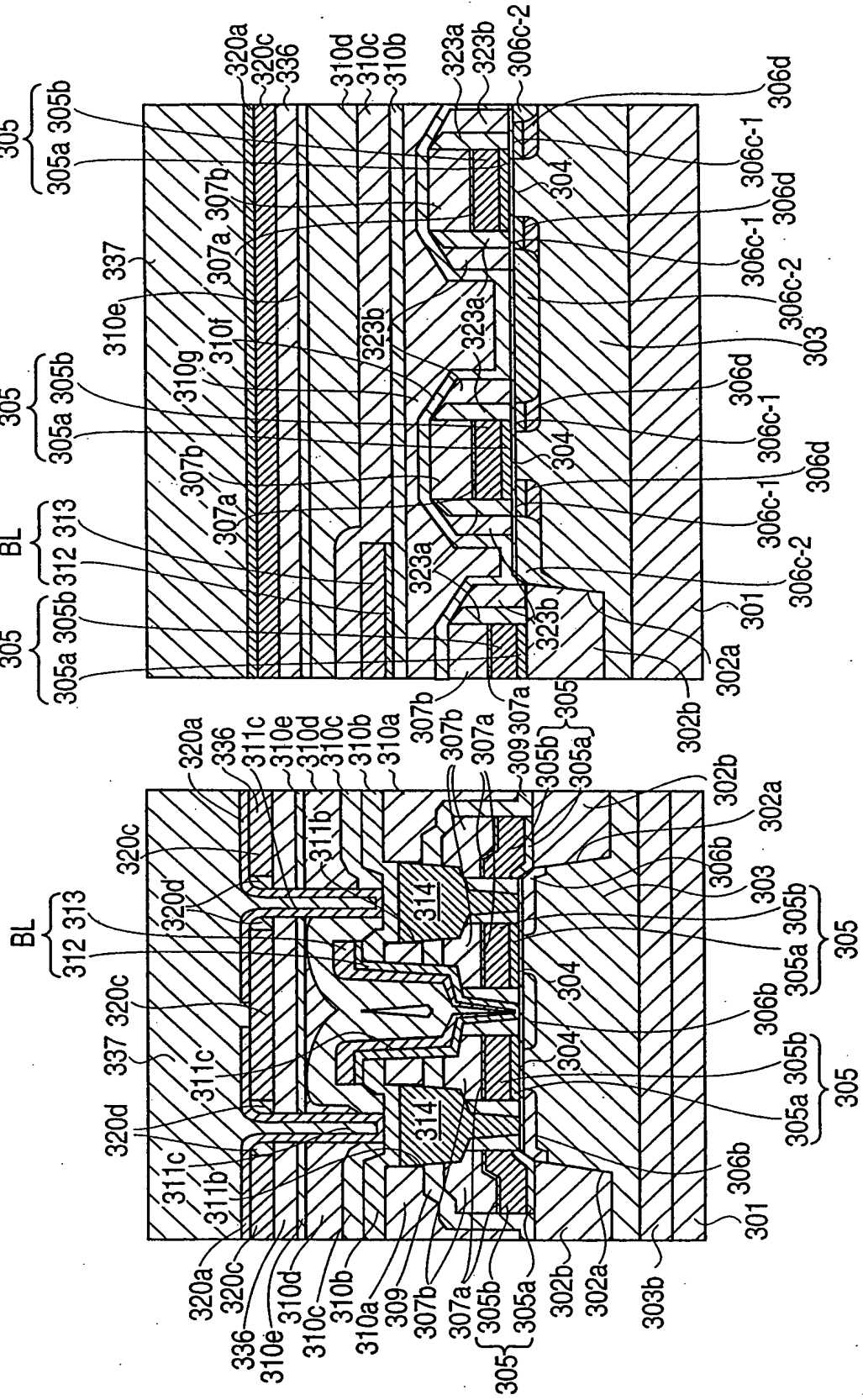


FIG. 75(b)

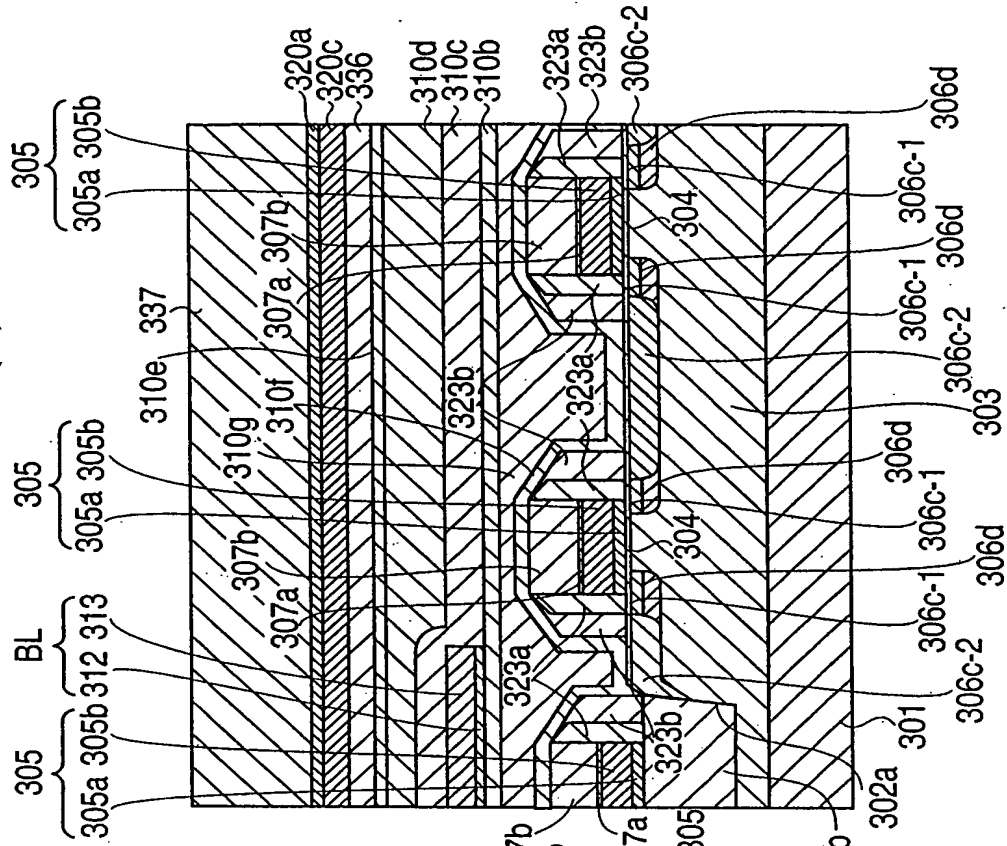


FIG. 76(a)

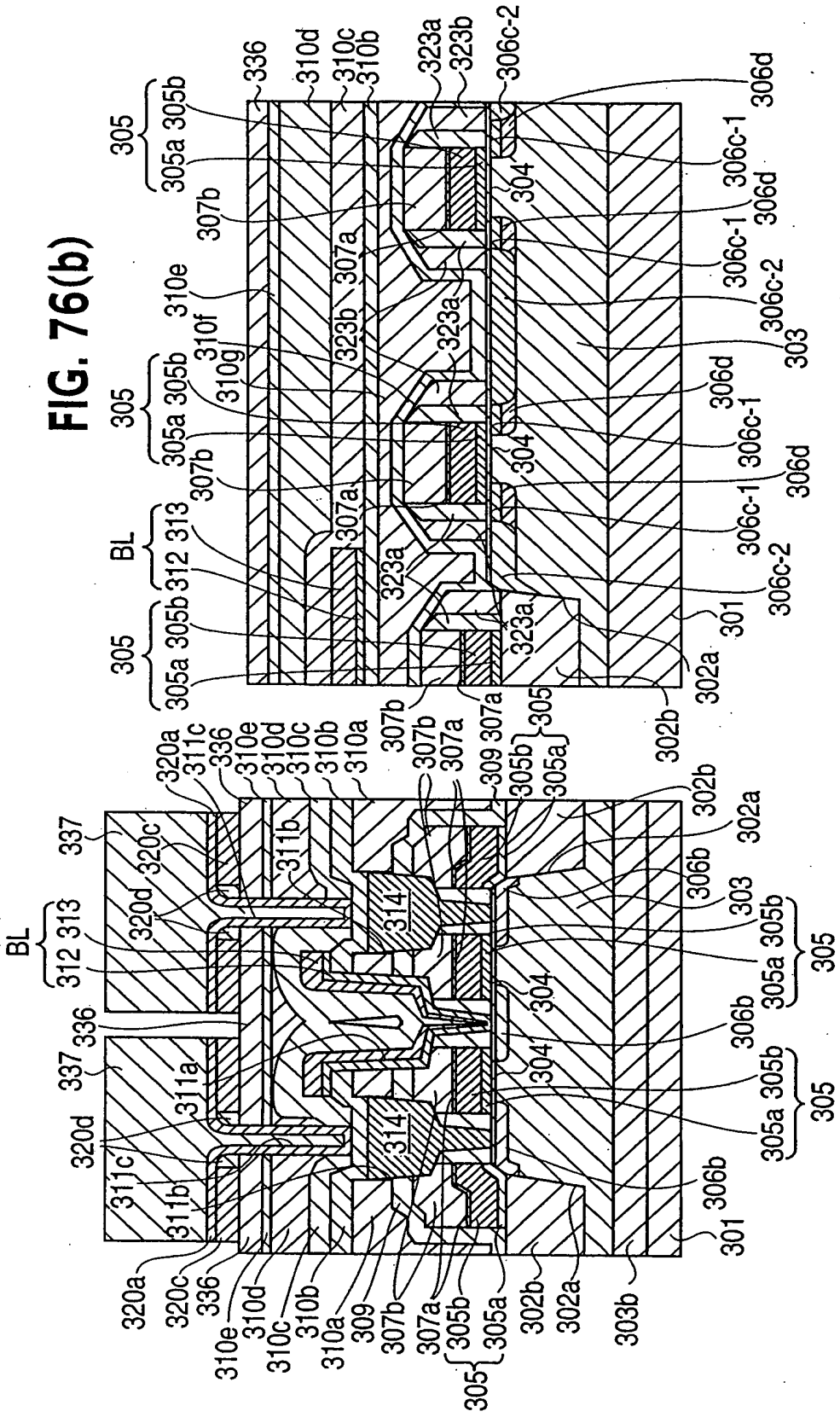


FIG. 76(b)

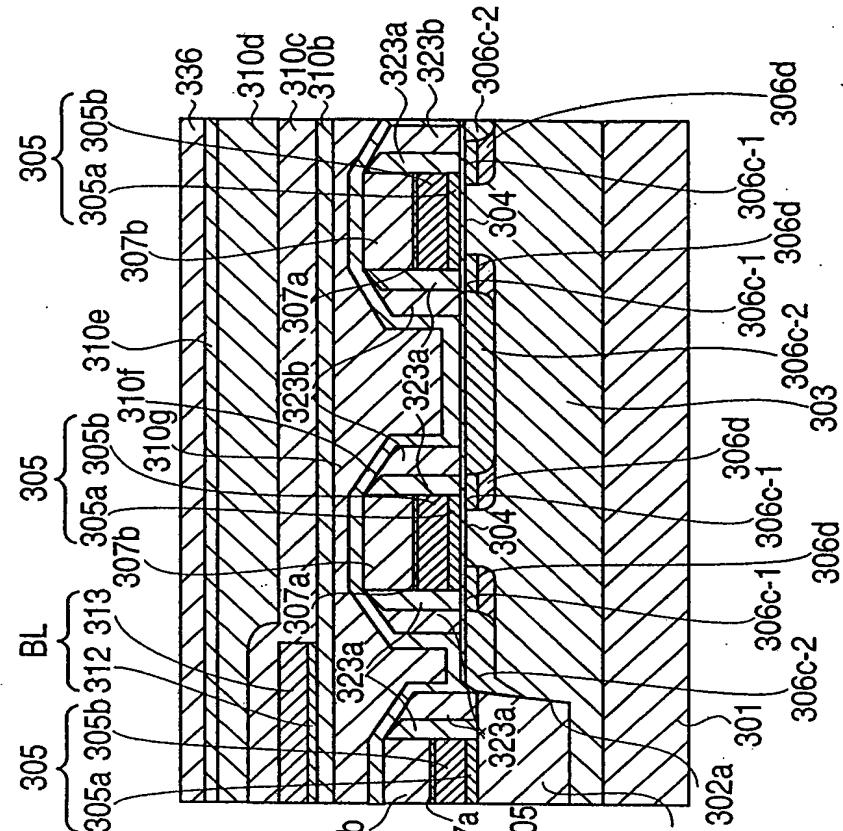


FIG. 77(b)

FIG. 77(b) is a cross-sectional view of a semiconductor device, similar to FIG. 77(a) but with different internal structures. It shows a substrate 301 with a top layer 302a. A central region contains a stack of layers 305a, 305b, 305c, 305d, 305e, 305f, 305g, 305h, 305i, 305j, 305k, 305l, 305m, 305n, 305o, 305p, 305q, 305r, 305s, 305t, 305u, 305v, 305w, 305x, 305y, 305z. The device includes various layers and structures labeled with reference numerals 301 through 320d, 320e, 320f, 320g, 320h, 320i, 320j, 320k, 320l, 320m, 320n, 320o, 320p, 320q, 320r, 320s, 320t, 320u, 320v, 320w, 320x, 320y, 320z. The structure is symmetrical about a central vertical axis.

FIG. 78(b)

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FIG. 79(b)



FIG. 80(a)

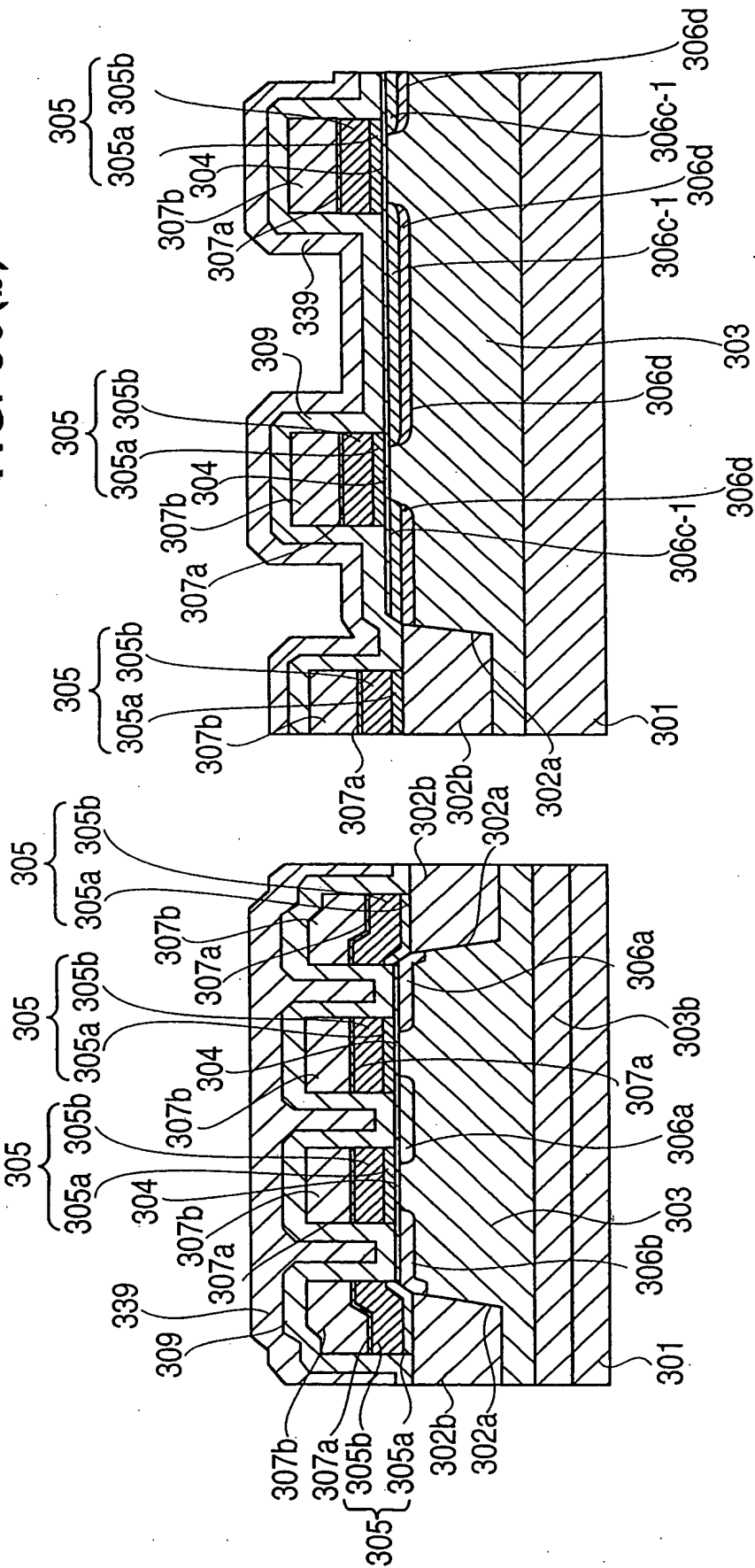


FIG. 80(b)

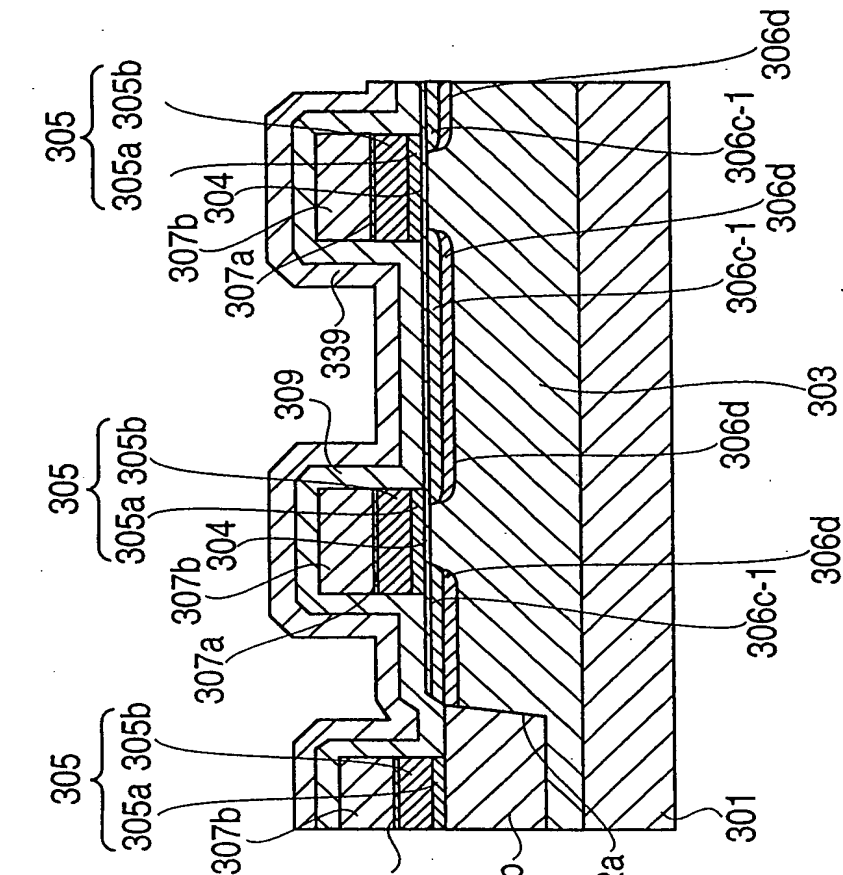


FIG. 81(b)

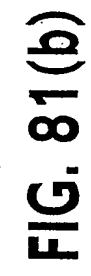


FIG. 82(a)

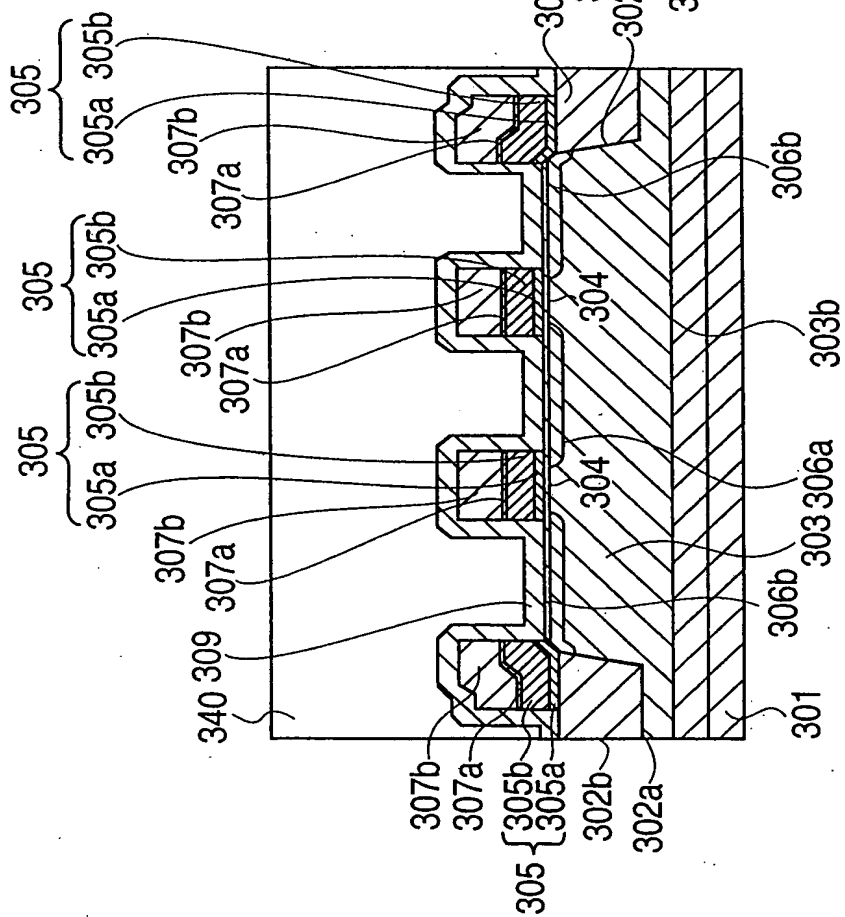


FIG. 82(b)

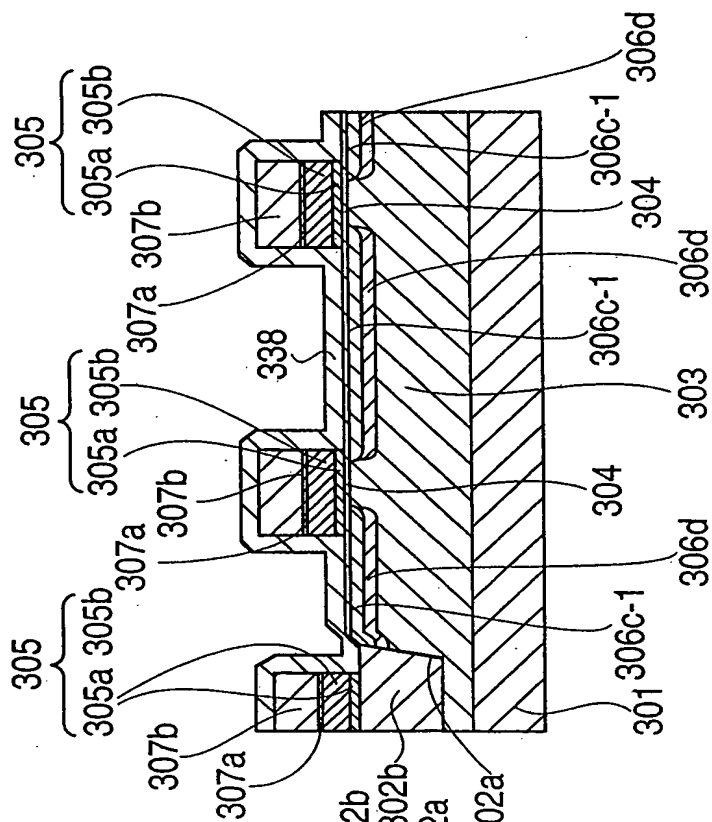


FIG. 83(a)

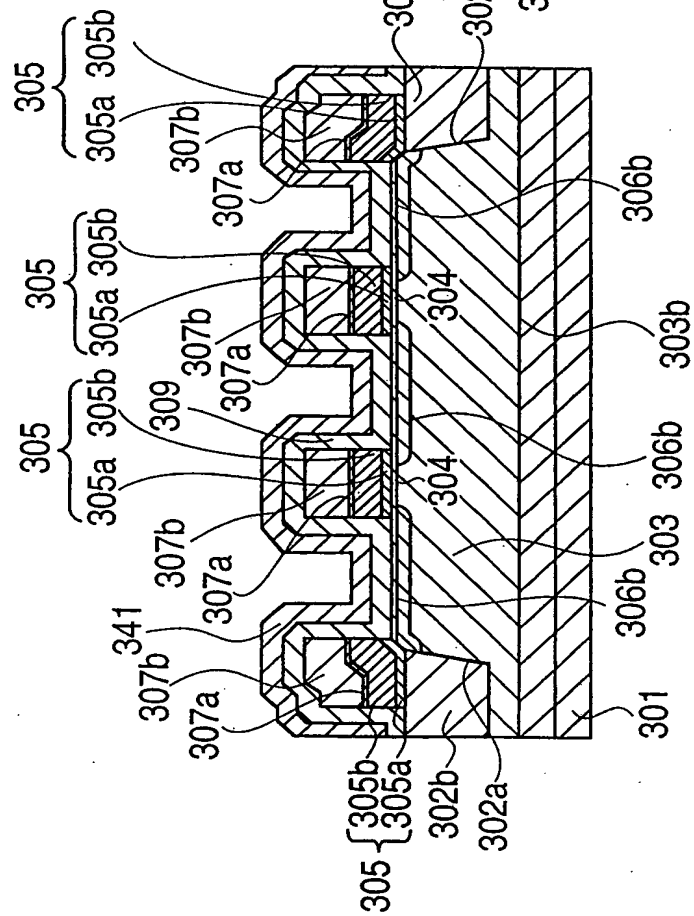


FIG. 83(b)

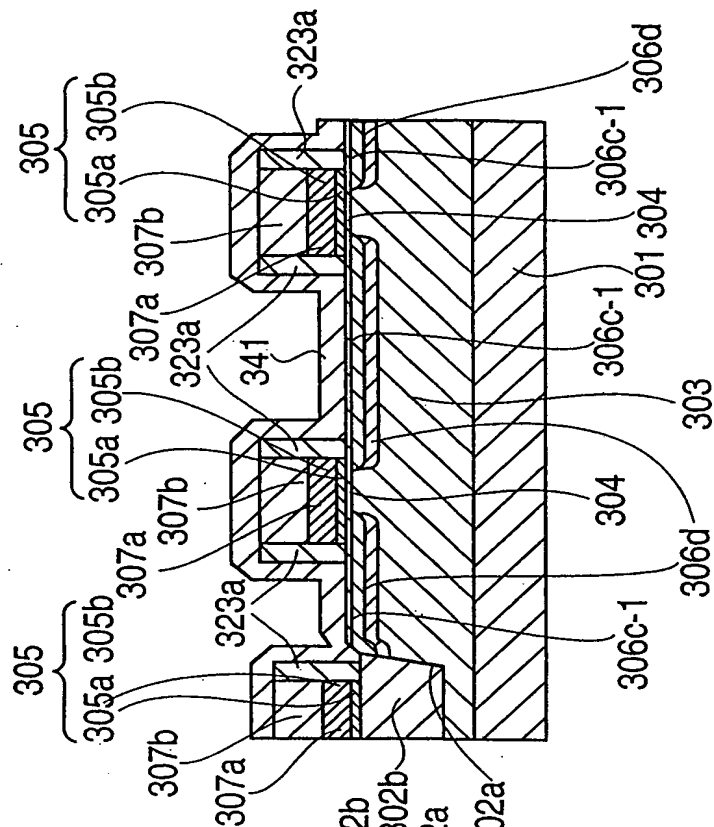


FIG. 84(a)

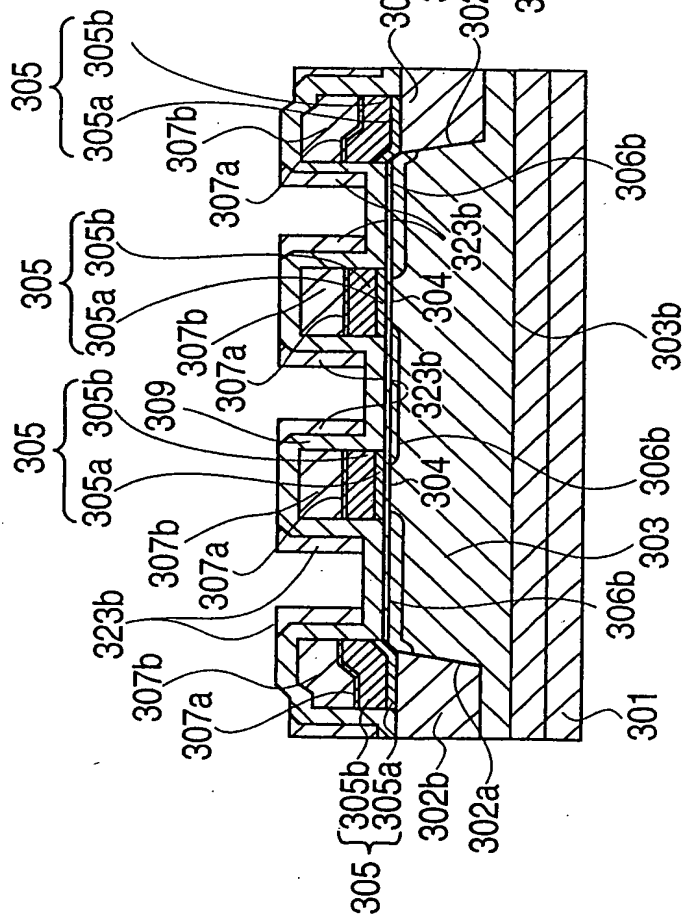


FIG. 84(b)

